

1/39

Figure 2A and B

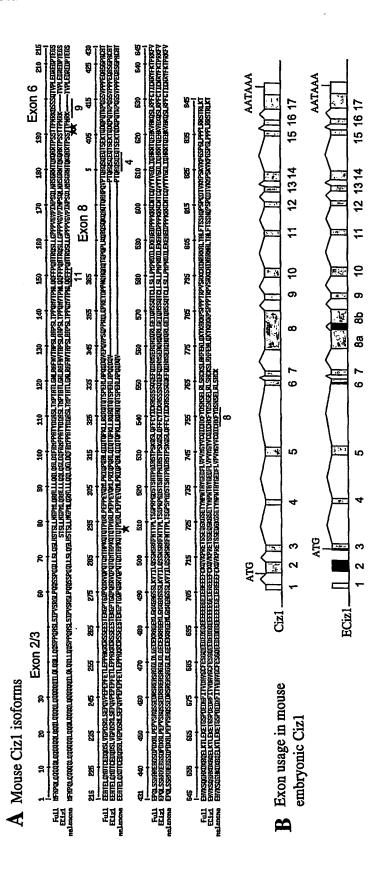
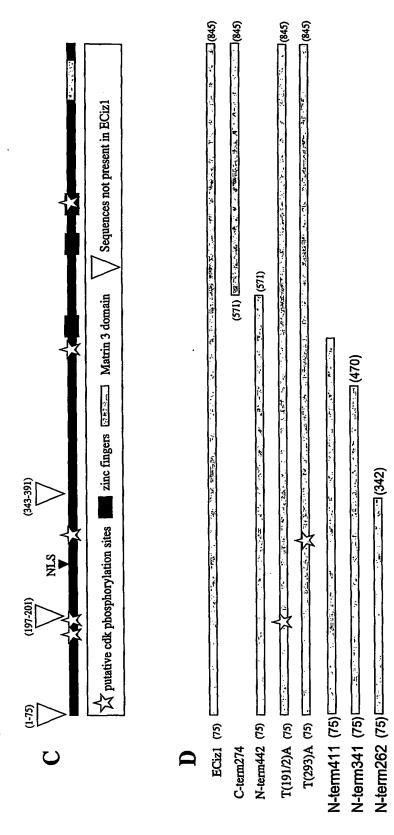
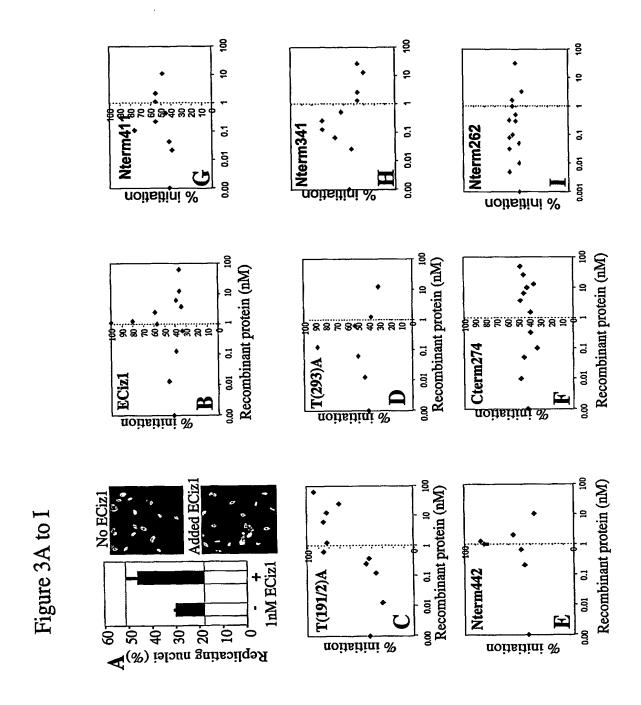
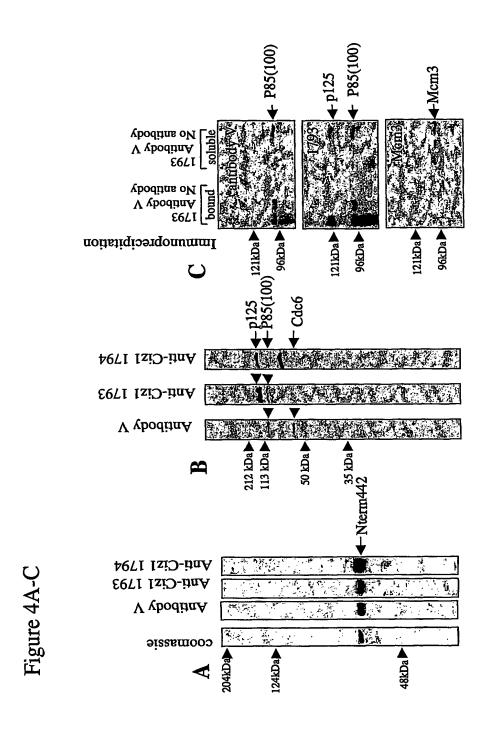
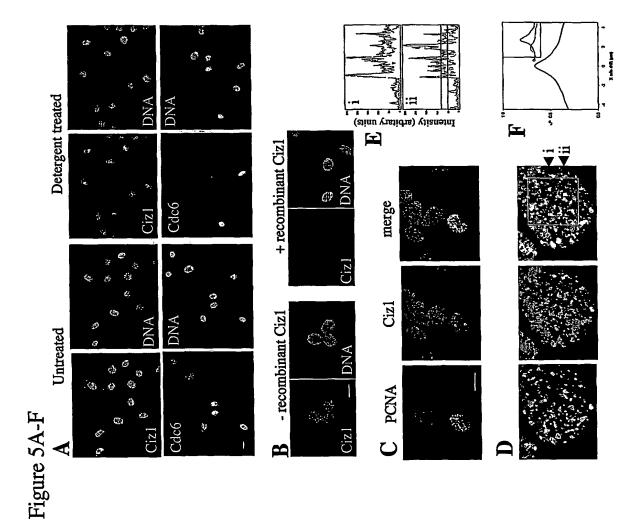


Figure 2C and D









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GAPDH siRNA Cizi siRNA 8 шоск **CizlsiRNA** 40 hours 16 hours Figure 6A and B 20 30 40 50 Hours after transfection Cell growth 9 Mean cell number per field 5285684865

Ciz1

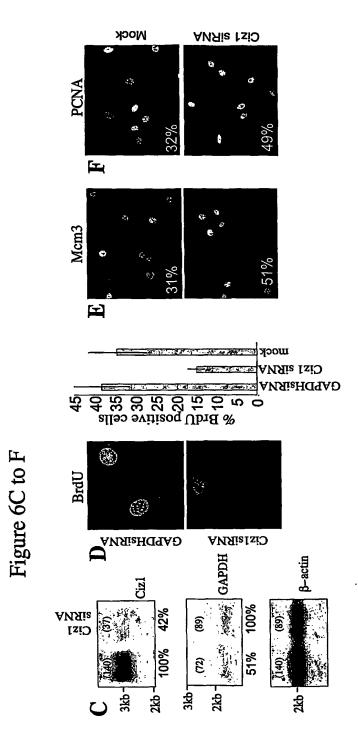
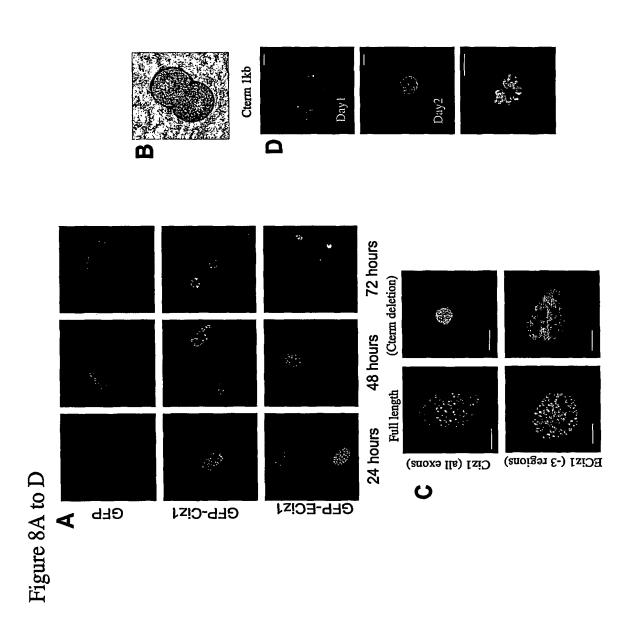


Figure 7

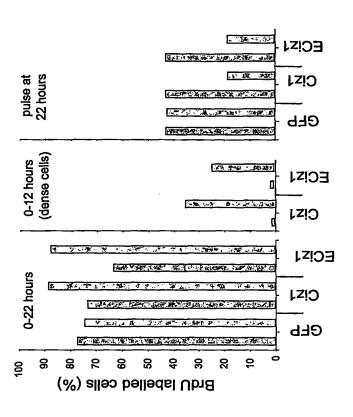
h/mCiz2 Exon 2 h/mCiz5 PGC 11.5 sequences ES cell sequences PGCs at d11.5 of embryogenesis mouse embryonic stem cells 12.5F 12.5M He PGCs (female) at d12.5 PGCs (male) at d12.5 Heart from d7 neonate PGCsmarker 11.5 ES942 3 2 M ES 11.5 12.5F 12.5M He M 0.6kb 0.3kb-

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WO 2004/051269

Figure 8E



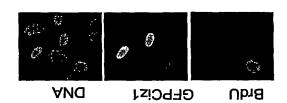
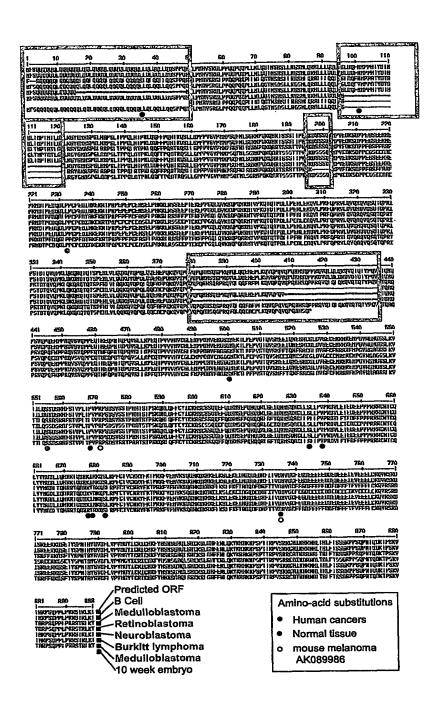


Figure 9A

Ciz1 Nterm(442 equivalent) ECizl Nterm442

Figure 10



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Figure 11a

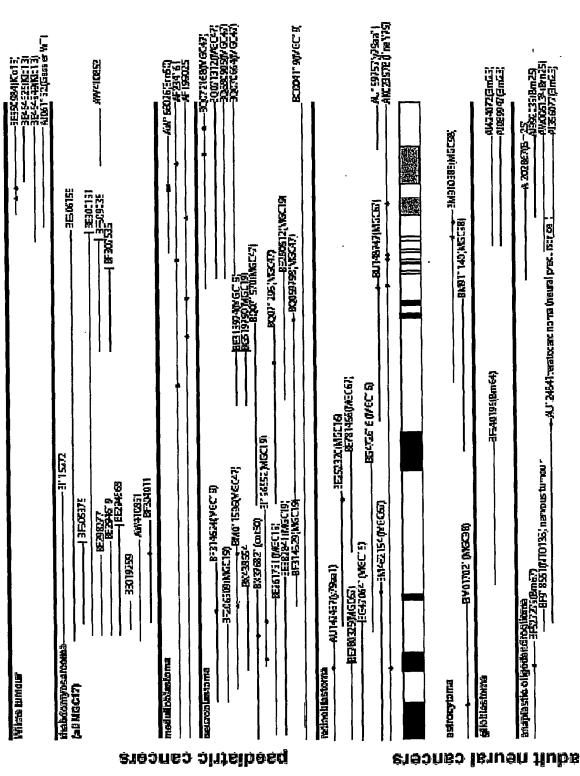
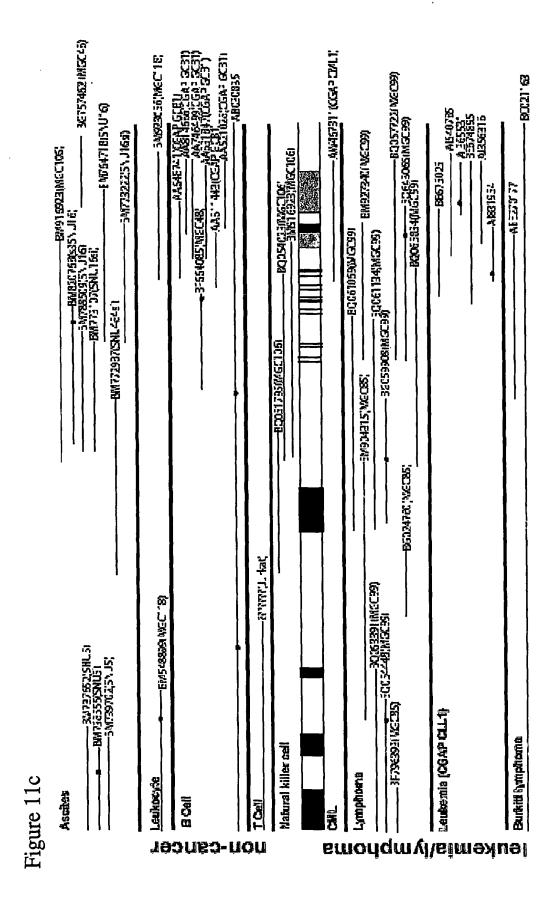


Figure 11b



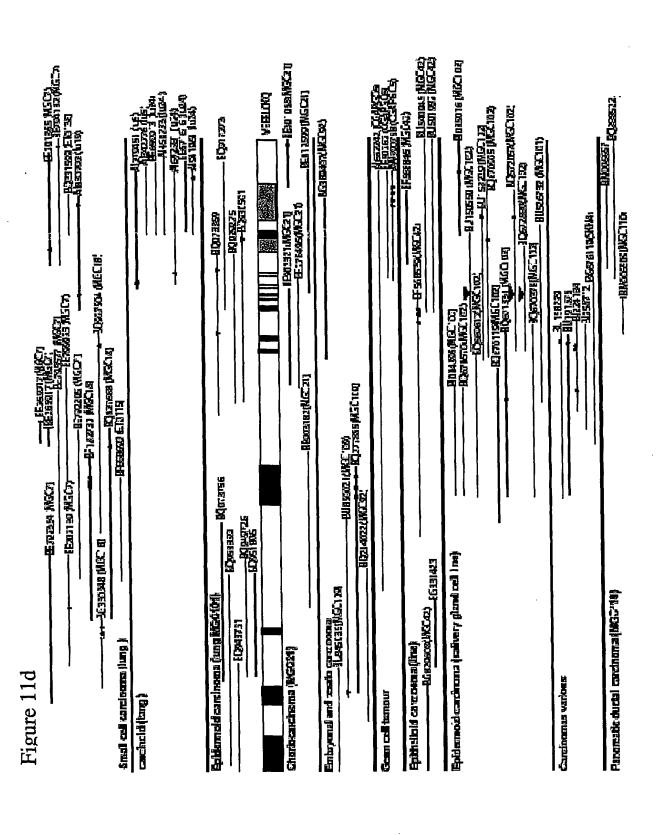
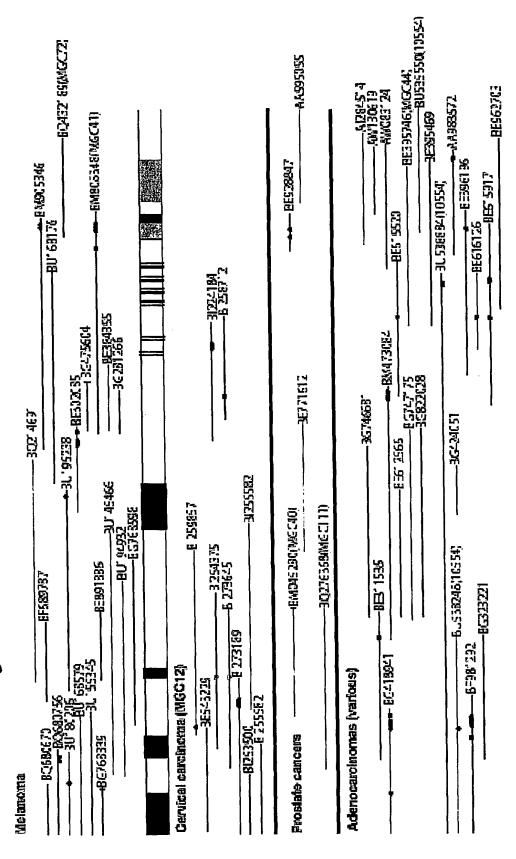


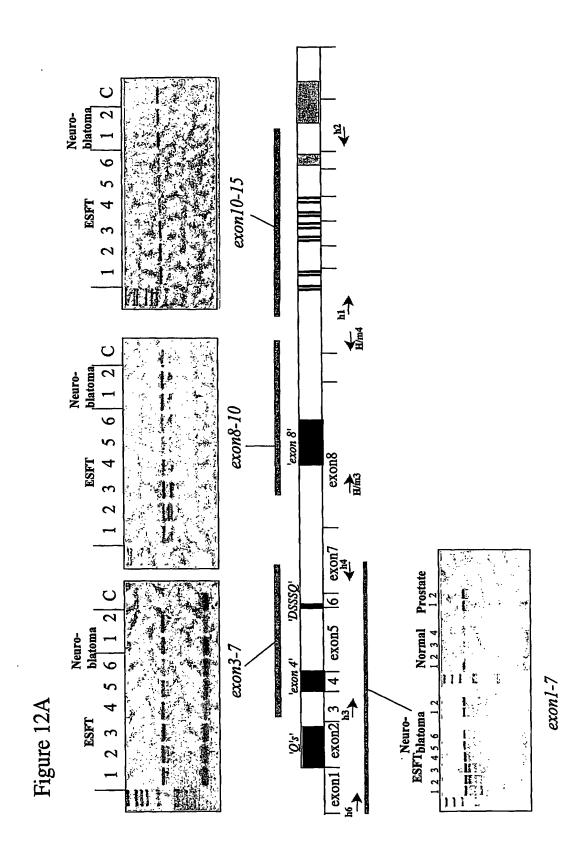
Figure 11e



PCT/GB2003/005334

Figure 11F

WS	PPTPRRDVFAHVPVQGWSTARLVTDM	VEEELCKO	VEEELCKQ'	POVOPOAHSOGPROVOLQOEAEPLKOVOPOVOPOAHSOPPROVOLQLOKOVOTOTY	זוז	AVASATAPRI PSTDTAVAPK LAKAAATATSPEHLVLAAKA VAPALAAEAE PAKAVA PAVAPAAHSAGPRA VALAAEAEPLKAVAPAYAPAAHSAPPRAVA LALAKAVATA TY
PLLNLQGTNSASLLNG				SPRAVALAAEAEPLKC	Pavapaahsappravalalakavataty	STDTQVQPK LQKQAC 3PRQ VQLQQEAEPLK
Lagagaalaalaagaalaaaalaaaalaaaalaaaalaa	LLQQSPP	केरिसम्म सम्मर्गः	'exon 8 repeats'	POVOPOAHSOC	PavapahsaF	AVASATAPRI P PAVAPAHSAC
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			,0°,		GLDQFAMPI	

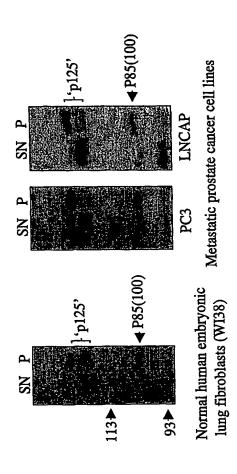


PCT/GB2003/005334

Figure 12E

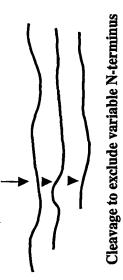
Examples of PCR products Ewings 6		Neuroblastoma 2	HEK293		
	6 N1 N2 293 0 1 2 0 3 1 0 0 3 8 3 4 0 1 0 0				
	0 3 0 2 2				
ucts	Z & -				
rodi	9 0 8 8 0	omag 16			
%	07070	blast Q 3/1 - 1/1			
f PC	40677	Neuroblastomas DSSSQ 3/16 Exon4 1/16			
Summary of PCR products	0 2 4 5 0				
nma	0 1 0 0 7	9 9			
Sur	10 4 4 0	22/2			
	1 DSSSQ 0 *exon4* 1* 'FL' 4 other 0	ESFTs DSSSQ 2/26 Exon4 8/26			

Figure 13A



gure 13B





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CATGTTCAAC CCGCAACTCC AGCAGCAGCA ACAGTTGCAG CAGCAGCAGC AACAGTTGCA GCAGCAGCTC CAGCAGCAGC AGCTCCAGCA GCAGCAACAG CAGATACTGC AGCTCCAACA GCTGCTGCAA CAGTCCCCAC CACAGGCCTC CTTGTCCATT CCTGTCAGCC GGGGCCTCCC CCAGCAGTCA TCCCCGCAAC AGCTTCTGAG TCTCCAGGGC CTCCACTCGA CCTCCCTGCT CAATGGCCCC ATGCTGCAAA GAGCTTTGCT CCTACAGCAG TTGCAAGGAC TGGACCAGTT TGCAATGCCA CCAGCCACGT ATGACGGTGC CAGCCTCACC ATGCCTACGG CAACACTGGG TAACCTCCGT GCTTTCAATG TGACAGCCCC AAGCCTAGCA GCTCCCAGCC TTACACCACC CCAGATGGTC ACCCCAAATC TGCAGCAGTT CTTTCCCCAG GCTACTCGAC AGTCTCTGCT GGGGCCTCCT CCTGTTGGGG TCCCAATAAA CCCTTCTCAG CTCAACCACT CAGGGAGGAA CACCCAGAAA CAGGCCAGAA CCCCCTCTTC CACCACCCCC AATCGCAAGG ATTCTTCTTC TCAGACGGTG CCTCTGGAAG ACAGGGAAGA CCCCACAGAG GGGTCTGAGG AAGCCACGGA GCTCCAGATG GACACATGTG AAGACCAAGA TTCACTAGTC GGTCCAGATA GCATGCTGAG TGAGCCCCAA GTGCCTGAGC CTGAGCCCTT TGAGACATTG GAACCACCAG CCAAGAGGTG CAGGAGCTCA GAGGAGTCCA CCGAGAAAGG CCCTACAGGG CAGCCACAAG CAAGGGTCCA GCCTCAGACC CAGATGACAG CACCAAAGCA GACACAGACC CCGGATCGGC TGCCTGAGCC ACCAGAAGTC CAAATGCTGC CGCGTATCCA GCCACAGGCA CTGCAGATCC AGACCCAGCC AAAGCTGCTG AGGCAGGCAC AGACACAGAC CTCTCCAGAG CACTTAGCGC CCCAGCAGGA TCAGGTAGAG CCACAGGTAC CATCACAGCC CCCATGCAG TTGCAGCCAC GGGAGACAGA CCCACCGAAC CAAGCTCAGG CACAGACCCA GCCTCAGCCC CTCTGGCAGG CGCAGTCACA GAAGCAGGCC CAGACACAGG CACATCCACA GGTACCCACC CAAGCACAGT CACAGGAGCA GACATCAGAG AAGACCCAGG ACCAGCCTCA GACCTGGCCA CAGGGGTCAG TACCCCCACC AGAACAAGCG TCAGGTCCAG CCTGTGCCAC GGAACCACAG CTATCCTCTC ACGCTGCAGA AGCTGGGAGT GACCCAGACA AGGCCTTGCC AGAACCAGTA AGTGCCCAGA GCAGTGAAGACAGGAGCCGG GAGGCGTCCG CTGGTGGCCT GGATTTGGGA GAATGTGAAA AGAGAGCGGG AGAGATGCTG GGGATGTGGG GGGCTGGGAG CTCCCTGAAG GTCACCATCC TGCAGAGTAG CAACAGCCGG GCCTTTAACA CCACACCCCT CACATCTGGA CCTCGCCCTG GGGACTCTAC CTCTGCCACC CCTGCCATTG CCAGCACACC CTCCAAGCAA AGCCTCCAGT TCTTCTGCTA CATCTGCAAG GCCAGCAGCA GCAGCCAGCA GGAGTTCCAG GATCACATGT CAGAGGCTCA GCACCAACAG CGGCTTGGGG AAATACAACA CTCGAGCCAG ACCTGCTGC TGTCCCTGCT GCCCATGCCT CGGGACATCC TGGAGAAAGA AGCGGAAGAT CCTCCGCCCA AACGCTGGTG CAACACCTGC CAGGTGTACT ACGTGGGAGA CTTGATCCAG CACCGTAGGA CACAGGAGCA CAAGGTTGCC AAACAATCCC TGAGGCCCTT CTGCACCATA TGCAACCGTT ACTTCAAGAC CCCTCGAAAG TTTGTGGAGC ACGTGAAGTC CCAGGGACAC AAGGACAAGG CCCAAGAGCT GAAGACACTTGAAAAGGAGA CAGGCAGCCC AGATGAGGAC CACTTCATCA CTGTGGACGC CGTCGGTTGC TTTGAGAGTG GTCAAGAAGA GGACGAGGAT GACGACGAGGAAGAAGAAGA AGAAGGAGAG ATTGAGGCTG AGGAGGAATT CTGCAAGCAG GTGAAGCCGA GAGAAACATC CTCAGAGCAA GGGAAGGGCT CTGAGACGTA CAACCCCAAC ACAGCCTATG GTGAGGATTT CCTGGTGCCA GTGATGGGCT ATGTCTGTCA AATCTGTCAC AAGTTCTACG ACAGCAACTC AGAATTGCGG CTTTCTCACT GCAAGTCCCT GGCCCACTTT GAGAACCTGC AGAAATACAA AGCCAAGAAC CCAAGCCCTC CTCCTACCCG GCCTGTGAGC CGCAAGTGTG CCATCAACGC CCGCAACGCC CTGACTGCAC TGTTCACCTC TAGCCACCAG CCCAGCCCCC AGGACACAGT GAAAATGCCC AGCAAGGTGA AGCCTGGATC CCCCGGACTC CCTCCTCCCC TTCGGCGCTC AACACGCCTC AAAACCTGAT AGAGGGAGCT CTGGCCACTC AGCCTGACTA AGGCTCAGTC TGCTAATGCT TCCTAGGTAT CTGTGTAGAA ATGTTCAAGT GGTTGGTGTT TTTACTCAAA ATCCAATAAA GAGTCAGTAG TTTGGCAAAA AAAAAAAAA AAAAAAA

TGGGGGCTGC GGGCCGGCC CATCCGTGGG GGCGACTTGA GCGTTGAGGG CGCGCGGGA GGCGAGCCAC CATGTTCAGC CAGCAGCAGC AGCAGCTCCA GCAACAGCAG CAGCAGCTCC AGCAGTTACA GCAGCAGCAG CTCCAGCAGC AGCAATTGCA GCAGCAGCAG TTACTGCAGC TCCAGCAGCT GCTCCAGCAG TCCCCACCAC AGGCCCCGTT GCCCATGGCT GTCAGCCGGG GGCTCCCCCC GCAGCAGCCA CAGCAGCCGC TTCTGAATCT CCAGGGCACC AACTCAGCCT CCCTCCTCAA CGGCTCCATG CTGCAGAGAG CTTTGCTTTT ACAGCAGTTG CAAGGACTGG ACCAGTTTGC AATGCCACCA GCCACGTATG ACACTGCCGG TCTCACCATG CCCACAGCAA CACTGGGTAA CCTCCGAGGC TATGGCATGG CATCCCCAGG CCTCGCAGCC CCCAGCCTCA CACCCCCACA ACTGGCCACT CCAAATTTGC AACAGTTCTT TCCCCAGGCC ACTCGCCAGT CCTTGCTGGG ACCTCCTCCT GTTGGGGTCC CCATGAACCC TTCCCAGTTC AACCTTTCAG GACGGAACCC CCAGAAACAG GCCCGGACCT CCTCCTCTAC CACCCCCAAT CGAAAGGATT CTTCTTCTCA GACAATGCCT GTGGAAGACA AGTCAGACCC CCCAGAGGGG TCTGAGGAAG CCGCAGAGCC CCGGATGGAC ACACCAGAAG ACCAAGATTT ACCGCCCTGC CCAGAGGACA TCGCCAAGGA AAAACGCACT CCAGCACCTG AGCCTGAGCC TTGTGAGGCG TCCGAGCTGC CAGCAAAGAG ATTGAGGAGC TCAGAAGAGC CCACAGAGAA GGAACCTCCA GGGCAGTTAC AGGTGAAGGC CCAGCCGCAG GCCCGGATGA CAGTACCGAA ACAGACACAG ACACCAGACC TGCTGCCTGA GGCCCTGGAA GCCCAAGTGC TGCCACGATT CCAGCCACGG GTCCTGCAGG TCCAGGCCCA GGTGCAGTCA CAGACTCAGC CGCGGATACC ATCCACAGAC ACCCAGGTGC AGCCAAAGCT GCAGAAGCAG GCGCAAACAC AGACCTCTCC AGAGCACTTA GTGCTGCAAC AGAAGCAGGT GCAGCCACAG CTGCAGCAGG AGGCAGAGCC ACAGAAGCAGGTGCAGCCAC AGGTACAGCC ACAGGCACAT TCACAGGGCC CAAGGCAGGT GCAGCTGCAG CAGGAGGCAG AGCCGCTGAA GCAGGTGCAG CCACAGGTGC AGCCCCAGGC ACATTCACAG CCCCCAAGGC AGGTGCAGCT GCAGCTGCAG AAGCAGGTCC AGACACAGAC ATATCCACAG GTCCACACAC AGGCACAGCC AAGCGTCCAG CCACAGGAGC ATCCTCCAGC GCAGGTGTCA GTACAGCCAC CAGAGCAGAC CCATGAGCAG CCTCACACCC AGCCGCAGGT GTCGTTGCTG GCTCCAGAGC AAACACCAGT TGTGGTTCAT GTCTGCGGGC TGGAGATGCC ACCTGATGCA GTAGAAGCTG GTGGAGGCAT GGAAAAGACC TTGCCAGAGC CTGTGGGCAC CCAAGTCAGC ATGGAAGAGA TTCAGAATGA GTCGGCCTGT GGCCTAGATG TGGGAGAATG TGAAAACAGA GCGAGAGAGA TGCCAGGGGTATGGGGCGCC GGGGGCTCCC TGAAGGTCAC CATTCTGCAG AGCAGTGACA GCCGGGCCTT TAGCACTGTA CCCCTGACAC CTGTCCCCCG CCCCAGTGAC TCCGTCTCCT CCACCCTGC GGCTACCAGC ACTCCCTCTA AGCAGGCCCT CCAGTTCTTC TGCTACATCT GCAAGGCCAG CTGCTCCAGC CAGCAGGAGT TCCAGGACCA CATGTCGGAG CCTCAGCACC AGCAGCGGCT AGGGGAGATC CAGCACATGA GCCAAGCCTG CCTCCTGTCC CTGCTGCCCG TGCCCCGGGA CGTCCTGGAG ACAGAGGATG AGGAGCCTCC ACCAAGGCGC TGGTGCAACA CCTGCCAGCT CTACTACATG GGGGACCTGA TCCAACACCG CAGGACACAG GACCACAAGA TTGCCAAACA ATCCTTGCGA CCCTTCTGCA CCGTTTGCAA CCGCTACTTC AAAACCCCTC GCAAGTTTGT GGAGCACGTG AAGTCCCAGG GGCATAAGGA CAAAGCCAAG GAGCTGAAGT CGCTTGAGAA AGAAATTGCT GGCCAAGATG AGGACCACTT CATTACAGTG GACGCTGTGG GTTGCTTCGA GGGTGATGAA GAAGAGGAAG AGGATGATGA GGATGAAGAAGAGATCGAGGTTGAGGAGGA ACTCTGCAAG CAGGTGAGGT CCAGAGATAT ATCCAGAGAG GAGTGGAAGG GCTCGGAGAC CTACAGCCCC AATACTGCAT ATGGTGTGGA CTTCCTGGTG CCCGTGATGG GCTATATCTG CCGCATCTGC CACAAGTTCT ATCACAGCAA CTCAGGGGCA CAGCTCTCCC ACTGCAAGTC CCTGGGCCAC TTTGAGAACC TGCAGAAATA CAAGGCGGCC AAGAACCCCA GCCCCACCAC CCGACCTGTG AGCCGCCGGT GCGCAATCAA CGCCCGGAAC GCTTTGACAG CCCTGTTCAC CTCCAGCGGC CGCCCACCCT CCCAGCCCAA CACCCAGGAC AAAACACCCA GCAAGGTGAC GGCTCGACCC TCCCAGCCCC CACTACCTCG GCGCTCAACC CGCCTCAAAA CCTGATAGAG GGACCTCCCT GTCCCTGGCC TGCCTGGGTC CAGATCTGCT AATGCTTTTT AGGAGTCTGC CTGGAAACTT TGACATGGTT CATGITTITA CTCAAAATCC AATAAAACAA GGTAGTITGG CTGTGCAAAA ΑΑΑΑΑΑΑΑΑ ΑΑΑΑΑΑΑΑΑ ΑΑ

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ل.

e 16

MFNPQLQQQQ QLQQQQQQLQ QQLQQQQLQQ QQQQILQLQQ LLQQSPPQAS

AMPPATYDGA SLIMPTATLG NLRAFNVTAP SLAAPSLTPP QMVTPNLQQF

LSIPVSRGLP QQSSPQQLLS LQGLHSTSLL NGPMLQRALL LQQLQGLDQF

PPQATRQSLL GPPPVGVPIN PSQLNHSGRN TQKQARTPSS TTPNRKDSSS QTVPLEDRED PTEGSEEATE LQMDTCEDQD SLVGPDSMLS EPQVPEPEPF ETLEPPAKRC RSSEESTEKG PTGQPQARVQ PQTQMTAPKQ TQTPDRLPEP PEVQMLPRIQ PQALQIQTQP KLLRQAQTQT SPEHLAPQQD QVEPQVPSQP PWQLQPRETD PPNQAQAQTQ PQPLWQAQSQ KQAQTQAHPQ VPTQAQSQP TSEKTQDQPQ TWPQGSVPPP EQASGPACAT EPQLSSHAAE AGSDPDKALP EPVSAQSSED RSREASAGGL DLGECEKRAG EMLGMWGAGS SLKVTLQSS NSRAFNTTPL TSGPRPGDST SATPAIASTP SKQSLQFFCY ICKASSSSQQ EFQDHMSEAQ HQQRLGEIQH SSQTCLLSLL PMPRDILEKE AEDPPPKRWC NTCQVYYVGD LIQHRRTQEH KVAKQSLRPF CTICNRYFKT PRKFYEHVKS QGHKDKAQEL KTLEKETGSP DEDHFITVDA VGCFESGQEE DEDDDBEEEE EGEIEAEEEF CKQVKPRETS SEQGKGSSTY NPNTAYGEDF LVPVMGYVCQ ICHKFYDSNS ELRLSHCKSL AHFENLQKYK AKNPSPPPTR PVSRKCAINA RNALTALFTS SHQPSPQDTV KMPSKVKPGS PGLPPPLRRS TRLKT

٦)

Figure 17

EWKGSETYS PNTAYGVDFLVPVMGYICRI CHKFYHSNSG AQLSHCKSLG HFENLQKYKA AKNPSPTTRPVSRRCAINAR NALTALFTS CTVCNRYFKTPRKFVEH VKSQGHKDKA KELKSLEKEI AGQDEDHFIT VDAVGCFEGDEEEEEDDEDE EEIEVEEELC KQVRSRDISR E V SMEEIQNESA CGLDVGECEN RAREMPGVWGAGGSLKVTIL QSSDSRAFST VPLTPVPRPS DSVSSTPAAT STPSKQALQFFCYICKA SCS SQQEFQDHMS EPQHQQRLGE IQHMSQACLL SLLPVPRDVLETEDEEPPPR RWCNTCQLYY MGDLIQHRRT QDHKIAKQSL RPF QTQTYP QVHT QAQPSVQPQEHPPAQV SVQPPEQTHE QPHTQPQVSL LAPEQTPVVV HVC GLEMPPDAVEAGGGMEK TLPEPVGTQ LQRALLLQQLQ GL DQFAMP PATYDTAGLT MPTATLGNLR GYGMASPGLA APSLTPPQLATPN LQQFFPQ ATRQSLLGPP PVGVPM NPSQ FNLSGRNPQK QARTSSSTTPNRK DSSSQTM PVEDKSDPPE GSEEAAEPRM DTPEDQDLPP CPEDIAKEKRTPA PEPEPCE ASEL QAQTQTSPEH LVLQQKQVQP QLQQEAEPQK QVQPQVQPQAHSQGPRQ VQLQQEAEPLKQV QPQVQPQAHS QPPRQVQLQL QKQV MF SQQQQQLQQQ QQQLQQLQQQ QLQQQQLQQQ QLLQLQQLLQQSPPQ APLPM AVSRGLPPQQ PQQPLLNLQG TNSASLLNGS M PAKRLR SSEEPTEKEP PGOLQVKAQP QARMTVPKQTQTP DLLPEAL EAQVLPRFQP RVLQVQAQVQ SQTQPRIPST DTQVQPKLQK S GRPPSQPNTQ DKTPSKVTAR PSQPPLPRRSTRLKT WO 2004/051269

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Figure 18

From exons 2/3 (at least two versions)
MFSQQQQQQL QQQQQLQQL QQQQLQQQL QQQQLLQLQQ LLQQSPPQA

ΘΟΓΟΌΓ ΟΘΟΟΓΟΘΟΘΕ ΘΟΘΟΓΓΟΓΟ ΙΤΟΘSPP

Exon 4 GLDQFAMPPATYDTAGLTMPTATL

From exon 6 DSSSQ From exon 8 (at least three versions)
PQVQPQAHSQPPRQVQLQLQKQVQTQTY

PQVQPQAHSQGPRQVQLQQEAEPLKQVQPQVQPQAHSQPPRQVQLQLQKQVQTQTY

QVQSQTQPRIPSTDTQVQPKLQKQAQTQ TSPEHLVLQQKQVQPQLQQEAEPQKQVQ PQVQPQAHSQGPRQVQLQQEAEPLKQVQ PQVQPQAHSQPPRQVQLQLQKQVQTQ TY

From exon 14 VEEELCKQ The following sequence is inserted in one carcinoma derived library (MGC102) between the third and fourth zinc finger, altering the spacing between them. **PPTPRRDVFAHVPVQGWSTARLVTDM** ۲

Figure 19

TGGGGGCTGC GGGGCCGGCC CATCCGTGGG GGCGACTTGA GCGTTGAGGGCGCGCGCGGGGA GGCGAGCCAC CATGITCAGC CAGCAGCAGC AGCAGCICCAGCAACAGCAG CAGCAGCICC AGCAGITACA GCAGCAGCAG CTCCAGCAGCAGCAATTGCA GCAGCAGCAG TTACTGCAGC TCCAGCAGCT GCTCCAGCAGTCCCCACCAC From exons 2/3 (at least two versions)

CAGCAG CTCCAGCAGT TACAGCAGCA GCAGCTCCAG CAGCAGCAATTGCAGCAGCA GCAGTTACTG CAGC TCCAGC AGCTGCTCCA GCAGTCCCCACCACA

Exon 4

GGACTGGAC CAGTTTGCAA TGCCACCAGC CACGTATGAC ACTGCCGGTCTCACCATGCC CACAGCAACA CTG

From exon 6

AGGATTCTTCTTCTC

From exon 8 (at least three versions)

CCACAGGTGC AGCCCCAGGC ACATTCACAG CCCCCAAGGC AGGTGCAGCTGCAGCTGCAG AAGCAGGTCC AGACACAGAC ATATCC CCACAGGTAC AGCCACAGGC ACATTCACAG GGCCCAAGGC AGGTGCAGCTGCAGCAGGAG GCAGAGCCGC TGAAGCAGGT GCAGCCACAG GTGCAGCCCCAGGCACATTC ACAGCCCCCA AGGCAGGTGC AGCTGCAGCT GCAGAAGCAGGTCCAGACAC AGACATAT

GGAGGCAGAGCCACAGAAGC AGGTGCAGCC ACAGGTACAG CCACAGGCAC ATTCACAGGGCCCAAGGCAG GTGCAGCTGC AGCAGGAGGC AGAGCCGCTG AAGCAGGTGCAGCCACAGGT GCAGCCCCAG GCACATTCAC CAGGTGCAGT CACAGACTCA GCCGCGGATA CCATCCACAG ACACCCAGGTGCAGCCAAAG CTGCAGAAGC AGGCGCAAAC ACAGACCTCT CCAGAGCACTTAGTGCTGCA ACAGAAGCAG GTGCAGCCAC AGCTGCAGCA AGCCCCCAAG GCAGGTGCAGCTGCAGCTGC AGAAGCAGGT CCAGACACAG ACATAT

From exon 14

GTTGAGGAGGAACTCTGCAAGCAG

GCCACCCACACCACGAAGAGATGTGTTTGCCCACGTTCCAGTGCAGGGGTGGAGCACAGCCCGGCTTGTTACAGATAT The following sequence is inserted in to Ciz1 transcripts in one carcinoma library (from Ciz1 intron 12)

Figure 20A

EIQNESA CGLDVGECEN RAREMPGVWGAGGSLKVTIL QSSDSRAFST VPLTPVPRPS DSVSSTPAAT STPSKQALQFFCYICKASCS SQQEFQDHMS BPQHQQRLGB IQHMSQALL SLLPVPRD VLFIEDEBPPPR RWCNTCQLYY MGDLIQHRRT QDHKLAKQSL RPFCTVCNRYFKTPRKFVEH VKSQGHKDKA KELKSLEKEI AGQDEDHFIT VDAVGCFEGDEBEBEDDEDE EBEBVEBELC K QVRSRDISR EEWKGSETYS PNTAYGVDFLVPVMGYICRI CHKFYHSNSG AQLSHCKSLG HFENLQKYKA AKNPSPTTRPVSRRCAINAR NALTALFTSS GRPPSQPNTQ DKTPSKVTAR PSQPP MF SQQQQULQQQ QQ APLPM AVSRGLPPQQ PQQPLLNLQG TNSASLLNGS MLQRALLLQQLQ GL DQFAMP PATYDTAGLT MPTATLGNLR GYGMASPGLA APSLTPPQLATPN LQQFFPQ ATROSLLGPP PVGVPMNPSQ FNLSGRNPQK QARTSSSTTPNRK DSSSQTM PVEDKSDPPB GSEEAAEPRM DTPEDQDLPP CPEDIAKEKRTPA PEPEPCE ASELPAKRLR SSERPTEKEP PGQL QVKAQP QARMTVPKQTQTP DLLPEAL BAQVLPRFQP RVLQVQAQVQ SQTQPRIPST DTQVQPKLQKQAQTQTSPEH LVLQQKQVQP QLQQBAEPQK QVQPQVQPQAHSQGPRQ VQLQQBA EFLKQV OPQVQPQAHS OPPRQVQLQL QKQVQTQTYP QVHT QAQPSVQPQEHPPAQV SVQPPEQTHB OPHTQPQVSL LAPEQTPVVV HVC GLEMPDAVBAGGGMEK TLPEPVGTQV SME Part of exons 2/3 absent LPRRSTRLKT

SQACLL SLLPVRRDVLETEDEEPPR RWCNTCQLYY MGDLIQHRRT QDHKIAKQSL RPFCTVCNRYFKTPRKFVEH VKSQGHKDKA KELKSLEKEI AGQDEDHFIT VDAVGCFEGDEBEBERD DEDB EEIEVEEELC KQVRSRDISR EEWKGSETYS PNTAYGVDFLVPVMGYICRI CHKFYHSNSG AQLSHCKSLG HFENLQKYKA AKNPSPTTRPVSRRCAINAR NALTALFTSS GRPPSQPNTQ TPN LQOFFPQ ATROSILGPP PYGYPMNPSQ FNLSGRNPQK QARTSSSTTPNRK DSSSQTM PYEDKSDPPB GSBEAAEPRM DTPEDQDLPP CPEDIAKEKRTPA PEPBPCB ASELPAKRLR SSB BFTEKEP PGOLQYKAQP QARMTYPKQTQTP DLLPEAL BAQYLPRFQP RYLQYQAQYQ SQTQPRIPST DTQYQPKLQKQAQTQTSPBH LYLQQKQYQP QLQQBABPQK QYQPQYQPQHSQ LPBPVGTQV SMEEIQNESA CGLDVGECEN RAREMPGVWGAGGSLKVTIL QSSDSRAFST VPLTPVPRPS DSVSSTPAAT STPSKQALQFFCYICKASCS SQQEFQDHMS EPQHQQRLGE IQHM GPRQ VQLQQEAEPLKQV QPQVQPQAHS QPPRQVQLQL QKQVQTQTYP QVHT QAQPSVQPQEHPPAQV SVQPPEQTHE QPHTQPQVSL LAPEQTPVVV HVC GLEMPPDAVEAGGGMEK T MF SQQQQQLQQQ QQQLQQLQQQQQLQQQQLQQQLLQQSPPQ APLPM AVSRGLPPQQ PQQPLLNLQG TNSASLLNGS MLQRALLLQQLQGNLR GYGMASPGLA APSLTPPQLA DKTPSKVTAR PSQPPLPRRSTRLKT

Part of exon 6 absent

MF SQQQQLQQQ QQQLQQLQQQ QLQQQQLQQQ QLLQLQQSPPQ APLPM AVSRGLPPQQ PQQPLJNLQG TNSASLLNGS MLQRALLLQQLQ GL DQFAMP PATYDTAGLT MPTAT LGNLR GYGMASPGLA APSLTPPQLATPN LQQFFPQ ATRQSLLGPP PVGVPMNPSQ FNLSGRNPQK QARTSSSTTPNRKTM PVEDKSDPPB GSEEAAEPRM DTPEDQDLPP CPEDIAKBKRTPA РЕРЕРСЕ ASEL PAKRLR SSEEPTEKEP PGOLQVKAQP QARMTVPKQTQTP DLLPEAL BAQVLPRFQP RVLQVQAQVQ SQTQPRIFST DTQVQPKLQKQAQTQTSPEH LVLQQKQVQP QLQQ ВАЕРQK QVQPQVQPQAHSQGPRQ VQLQQBAEPLKQV QPQVQPQAHS QPPRQVQLQL QKQVQTYP QVHT QAQPSVQPQEHPPAQV SVQPPEQTHB QPHTQPQVSL LAPEQTFVVV HVC GLEMPPDA VEAGGGMEK TLPEPVGTQV SMEEIQNESA CGLDVGECEN RAREMPGVWGAGGSLKVTIL QSSDSRAFST VPLTPVPRPS DSVSSTPAAT STPSKQALQFFCYICKASCS SQQEF QDHMS EPQHQQRLGE IQHMSQACLL SLLPVPRDVLETEDEEPPR RWCNTCQLYY MGDLIQHRRT QDHKIAKQSL RPFCTVCNRYFKTPRKFVEH VKSQGHKDKA KELKSLEKEI AGQDE DHFIT VDAVGCFEGDEEBEEDDEDE BEIEVBEELC KQVRSRDISR EBWKGSETYS PNTAYGVDFLVPVMGYICRI CHKFYHSNSG AQLSHCKSLG HFBNLQKYKA AKNPSFTTRPVSRRCAIN AR NALTALFTSS GRPPSQPNTQ DKTFSKVTAR PSQPPLPRRSTRLKT

ATLGNIR GYGMASPGIA APSITPPQIATPN LQQFFPQ ATRQSLLGPP PVGVPMINPSQ FNI.SGRNPQK QARTSSSTTPNRK DSSSQTM PVEDKSDPPE GSEEAAEPRM DTPEDQDI.PP CPE LGE IQHMSQACIL SILPVPRDVLETEDEEPPPR RWCNTCQLYY MGDLIQHRRT QDHKIAKQSL RPFCTVCNRYFKTPRKFVEH VKSQGHKDKA KELKSLEKEI AGQDEDHFIT VDAVGC FEGDEEBEEDDEDE EEIEVEEELC KQVRSRDISR EEWGSETYS PNTAYGVDFLVPVMGYICRI CHKFYHSNSG AQLSHCKSLG HFENLQKYKA AKNPSPTTRPVSRRCAINAR NALTAL QOKQVQP QLQQBABPQK QVQPQVQPQAHSQGPRQ VQLQQBABPLKQV Q QVHT QAQPSVQPQHHPPAQV SVQPPBQTHB QPHTQPQVSL LAPBQTPVVV HVC GLBMPPDAVBAGGG MEK TLPEPVGTQV SMEBIQNBSA CGLDVGBCEN RARBMPGVWGAGGSLKVTIL QSSDSRAFST VPLTPVPRPS DSVSSTPAAT STPSKQALQFFCYICKASCS SQQBFQDHMS BPQHQQR DIAKEKRTPA PEPEPCE ASELPAKRLR SSEEPTEKEP PGOLQVKAQP QARMTVPKQTQTP DLLPBAL EAQVLPRFQP RVLQVQAQVQ SQTQPRIPST DTQVQPKLQKQAQTQTSPEH LVL FTSS GRPPSQPNTQ DKTPSKVTAR PSQPPLPRRSTRLKT

(J' / ' PCT/GB2003/005334

Exon 8 minus variant 2

V SMEHQNBSA CGLDVGECEN RAREMPOVWGAGGSLKVTIL QSSDSRAFST VPLTPVPRPS DSVSSTPAAT STPSKQALQFFCYICKASCS SQQEFQDHMS EPQHQQRLGB IQHMSQ ACIL SILPVPRDVLETEDEEPPR RWCNTCQLYY MGDLIQHRRT QDHKIAKQSL RPFCTVCNRYFKTPRKFVEH VKSQGHKDKA KELKSI.EKEI AGQDEDHFIT VDAVGCFEGDEE EEEDDEDE HEIEVEEELC KQVRSRDISR EEWKGSETYS PNTAYGVDFLVPVMGYICRI CHKFYHSNSG AQLSHCKSLG HFENLQKYKA AKNPSPTTRPVSRRCAINAR NALTALFTSS MF SQQQQQLQQQ QQQQQQQQQQQQQQQQQQQQLQQQQLLQQQSPPQ APLPM AVSRGLPPQQ PQQPLLNLQG TNSASILNGS MLQRALLLQQLQ GL DQFAMP PATYDTAGLT QAQTQTSPEH LVI.QQKQVQP QLQQEAEPQK QVQ P QVHT QAQPSVQPQEHPPAQV SVQPPEQTHE QPHTQPQVSL LAPEQTPVVV HVC GLEMPPAVEAGGGMEK TLPHPVGTQ MPTATLGNLR GYGMASPGLA APSLITPPQLATPN LQQFFPQ ATRQSLLGPP PVGVPMINPSQ FNLSGRINPQK QARTSSSTIPNRK DSSSQTM PVEDKSDPPE GSBEAAEPRM DTPED DDLPP CPEDIAKEKRTPA PEPEPCE ASELPAKRLR SSEEPTEKEP PGOLQVKAQP QARMTVPKQTQTP DLLPEAL BAQVLPRFQP RVLQVQAQVQ SQTQPRIPST DTQVQPKLQK GRPPSQPNTQ DKTPSKVTAR PSQPPLPRRSTRLKT

Exon 8 minus variant 3

RPS DŠVSSTPAAT STPSKQALQFFCYICKASCS SQQEFQDHMS EPQHQQRLGE IQHMSQACLL SILPVPRDVLETEDEEPPR RWCNTCQLYY MGDLIQHRRT QDHKIAKQSL RPFC TVCNRYFKTPRKFVBH VKSQGHKDKA KELKSLEKEI AGQDEDHFIT VDAVGCFEGDEEBEBDDEDE BEIEVBHEIC KQVRSRDISR BEWKGSBTYS PNTAYGVDFLVPVMGYICRI CHKFYHSNSG AQLSHCKSLG HFBNLQKYKA AKNPSPTTRPVSRRCAINAR NALTALFTSS GRPPSQPNTQ DKTPSKVTAR PSQPPLPRRSTRLKT OPPEQTHE OPHTOPOVSL LAPBOTPVVV HVC GLEMPPDAVEAGGGMEK TLPEPVGTQV SMEETONESA CGLDVGECEN RAREMPGVWGAGGSLKVTIL OSSDSRAFST VPLTPVP MF SOQQOQLQQQ QQQLQQLQQQ QLQQLQQQQLQQQLLQQSPPQ APLPM AVSRGLPPQQ PQQPLLNLQG TNSASLLNGS MLQRALLLQQLQ GL DQFAMP PATYDTAGLT MPTATIĞNIR GYGMASPGILA APSITIPQILATPN LQQFFPQ ATRQSILGPP PVGVPMNPSQ FNISGRNPQK QARTSSSTTPNRK DSSSQTM PVEDKSDPPE GSEBAAEPRM DTPED ODLPP CPEDIAKEKRTPA PEPEPCE ASELPAKRIR SSEEPTEKEP PGQLQVKAQP QARMTVPKQTQTP DILPEAL EAQVIPREQP RVLQVQA P QVHT QAQPSVQPQEHPPAQV SV

Exon 14 minus variant

S DSVSSTPAAT STPSKQALQFFCYICKASCS SQQEFQDHMS EPQHQQRLGB IQHMSQACLL SLLPVPRDVLETEDEEPPPR RWCNTCQLYY MGDLIQHRRT QDHKIAKQSL RPFCTV CNRYFKTPRKFVBH VKSQGHKDKA KELKSLEKEI AGQDEDHFIT VDAVGCFEGDEBEBEDDEDE EEIE VRSRDISR EEWKGSETYS PNTAYGVDFLVPVMGYICRI CHKFYHSNSG AQLSHCKSLG HFENLQKYKA AKNPSPTTRPVSRRCAINAR NALTALFTSS GRPPSQPNTQ DKTPSKVTAR PSQPPLPRRSTRLKT

Also to be protected are transcripts which lack combinations of the variable exons. For example:-

Exon 4 and partial exon 6 minus variant

LTPPQLATPN LQQFFPQ ATRQSLLGPP PVGVPMNPSQ FNLSGRNPQK QARTSSSTTPNRK DSSSQTM PVEDKSDPPE GSEEAAEPRM DTPEDQDLPP CPEDIAKEKRTPA PEPEPCE FCYICKASCS SQQEFQDHMS EPQHQQRLGE IQHMSQACLL SLLPVPRDVLETEDEEPPR RWCNTCQLYY MGDLIQHRRT QDHKIAKQSL RPFCTVCNRYFKTPRKFVEH VKSQG ASELPAKRLR SSEEPTEKEP PGOLQVKAQP QARMTVPKQTQTP DLLPEAL EAQVLPRFQP RVLQVQAQVQ SQTQPRIPST DTQVQFKLQKQAQTQTSPEH LVLQQKQVQP QLQQ EAERQK QVQPQVQPQAHSQGPRQ VQLQQEAEPLKQV QPQVQPQAHS QPPRQVQLQL QKQVQTQTYP QVHT QAQPSVQPQHPPAQV SVQPPEQTHB QPHTQPQVSL LAPEQT PVVV HVC GLEMPPDAVEAGGGMEK TLPEPVGTQV SMEBIQNESA CGLDVGECEN RAREMPGVWGAGGSLKVTIL QSSDSRAFST VPLTPVPRPS DSVSSTPAAT STPSKQALQP MF SQQQQQLQQQ QQQLQQQQQLQQQQQLQQQLLQQQFPQ APLPM AVSRGLPPQQ PQQPLLNLQG TNSASLLNGS MLQRALLLQQLQGNLR GYGMASPGLA APS HKDKA KELKSLEKEI AGQDEDHFIT VDA VGCFEGDEBEBEDDEDE EEIBVEEELC KQVRSRDISR EEWKGSETYS PNTA YGVDFLVPVMGYICRI CHKFYHSNSG AQLSHCKSLG HFENLOKYKA AKNPSPTTRPVSRRCAINAR NALTALFTSS GRPPSQPNTQ DKTPSKVTAR PSQPPLPRRSTRLKT

Figure 21A

Part of exons 2/3 absent

TGGGGGCTGC GGGCCCGGCC CATCCGTGGG GGCGACTTGA GCGTTGAGGG CGCGCGGGGA GGCGAGCCAC CATGTTCAGC CAGCAGCAGC AGCAGCTCCA GCAACAGCAG GGCCCCGTT GCCCATGGCT GTCAGCCGGG GGCTCCCCCC GCAGCAGCCA CAGCAGCCGC TTCTGAATCT CCAGGGCACC AACTCAGCCT CCCTCCTCAA CGGCTCCATG CTGCAGAGAG CTTTGCTTTT ACAGCAGTTG CAAGGACTGG ACCAGTTTGC AATGCCACCA GCCACGTATG ACACTGCCGG TCTCACCATG CCCACAGCAA CACTGGGTAA CCTCCGAGGC TATGGCATGG CATCCCCAGG CCTCGCAGCC CCCAGCCTCA CACCCCCACA ACTGGCCACT CCAAATTTGC AACAGTTCTT TCCCCAGGCC ACTCGCCAGT CCTTGCTGGG ACCTCCTCCT GTTGGGGTCC CCATGAACCC TTCCCAGTTC AACCTTTCAG GACGGAACCC CCAGAAACAG GCCCGGACCT CCTCCTCTAC CACCCCCAAT CGAAAGGATT CITCITCICA GACAATGCCT GTGGAAGACA AGTCAGACCC CCCAGAGGGG TCTGAGGAAG CCGCAGAGCC CCGGATGGAC ACACCAGAAG ACCAAGATTT ACCGCCCTGC CCAGAGGACA TCGCCAAGGA AAAACGCACT CCAGCACCTG AGCCTGAGCC TTGTGAGGCG TCCGAGCTGC CAGCAAAGAG ATTGAGGAGC TCAGAAGAGC CCACAGAGAA GGAACCTCCA GGGCAGTTAC AGGTGAAGGC CCAGCCGCAG GCCCGGATGA CAGTACCGAA ACAGACACAG ACACCAGACC TGCTGCCTGA GGCCCTGGAA GCCCAAGTGC TGCCACGATT CCAGCCACGG GTCCTGCAGG TCCAGGCCCA GGTGCAGTCA CAGACTCAGC CGCGGATACC ATCCACAGAC ACCCAGGTGC AGCCAAAGCT GCAGAAGCAG GCGCAAACAC AGACCTCTCC AGAGCACITA GTGCTGCAAC AGAAGCAGGT GCAGCCACAG CTGCAGCAGG AGGCAGAGCC ACAGAAGCAG GTGCAGCCAC AGGTACAGCC ACAGGCACAT TCACAGGGCC CAAGGCAGGT GCAGCTGCAG CAGGAGGCAG AGCCGCTGAA GCAGGTGCAG CCACAGGTGC AGCCCCAGGC ACATTCACAG CCCCCAAGGC AGGTGCAGCT GCAGCTGCAG AAGCAGGTCC AGACACAGAC ATATCCACAG GTCCACACAC AGGCACAGCC AAGCGTCCAG CCACAGGAGC ATCCTCCAGC GCAGGTGTCA GTACAGCCAC CAGAGCAGAC CCATGAGCAG CCTCACACCC AGCCGCAGGT GTCGTTGCTG GCTCCAGAGC AAACACCAGT TGTGGTTCAT GTCTGCGGGC TGGAGATGCC ACCTGATGCA GTAGAAGCTG GTGGAGGCAT GGAAAAGACC TTGCCAGAGC CTGTGGGCAC CCAAGTCAGC ATGGAAGAGA TTCAGAATGA GTCGGCCTGT GGCCTAGATG TGGGAGAATG TGAAAACAGA GCGAGAGAGA TGCCAGGGGT ATGGGGCGCC GGGGGCTCCC TGAAGGTCAC CATTCTGCAG AGCAGTGACA GCCGGGCCTT TAGCACTGTA CCCCTGACAC CTGTCCCCCG CCCCAGTGAC TCCGTCTCCT CCACCCCTGC GGCTACCAGC ACTCCCTCTA AGCAGGCCCT CCAGTTCTTC TGCTACATCT GCAAGGCCAG CTGCTCCAGC CAGCAGGAGT TCCAGGACCA CATGTCGGAG CCTCAGCACC AGCAGCGGCT AGGGGAGATC CAGCACATGA GCCAAGCCTG CCTCCTGTCC CTGCTGCCCG TGCCCCGGGA CGTCCTGGAG ACAGAGGATG AGGAGCCTCC ACCAAGGCGC TGGTGCAACA CCTGCCAGCT CTACTACATO GGGGACCTGA TCCAACACCG CAGGACACAG GACCACAAGA TTGCCAAACA ATCCTTGCGA CCCTTCTGCA CCGTTTGCAA CCGCTACTTC AAAACCCCTC GCAAGTTTGT GGAGCACGTG AAGTCCCAGG GGCATAAGGA CAAAGCCAAG GAGCTGAAGT CGCTTGAGAA AGAAATTGCT GGCCAAGATG AGGACCACTT CATTACAGTG GACGCTGTGG GTTGCTTCGA GGGTGATGAA GAAGAGGAAG AGGATGATGA GGATGAAGAA GAGATCGAGG TTGAGGAGGA ACTCTGCAAG CAGGTGAGGT CCAGAGATAT ATCCAGAGAG GAGTGGAAGG GCTCGGAGAC CTACAGCCCC AATACTGCAT ATGGTGTGGA CTTCCTGGTG CCCGTGATGG GCTATATCTG CCGCATCTGC CACAAGTTCT ATCACAGCAA CTCAGGGGCA CAGCTCTCCC ACTGCAAGTC CCTGGGCCAC TTTGAGAACC TGCAGAAATA CAAGGCGGCC AAGAACCCCA GCCCACCAC CCGACCTGTG AGCCGCCGGT GCGCAATCAA CGCCCGGAAC GCTTTGACAG CCCTGTTCAC CTCCAGCGGC CGCCCACCCT CCCAGCCCAA CACCCAGGAC AAAACACCCA GCAAGGTGAC GGCTCGACCC TCCCAGCCCC CACTACCTCG GCGCTCAACC CGCCTCAAAA CCTGATAGAG GGACCTCCCT GTCCCTGGCC TGCCTGGGTC CAGATCTGCT AATGCTTTTT AGGAGTCTGC CTGGAAACTT TGACATGGTT CATGITTITA CTCAAAATCC AATAAAACAA GGTAGTITGG CTGTGCAAAA ΑΑΑΑΑΑΑΑΑ ΑΑΑΑΑΑΑΑΑ ΑΑ

Exon 4 absent

TGGGGGCTGC GGGGCCGGCC CATCCGTGGG GGCGACTTGA GCGTTGAGGG CGCGCGGGA GGCGAGCCAC CATGTTCAGC CAGCAGCAGC AGCAGCTCCA GCAACAGCAG CAGCAGCTCC AGCAGTTACA GCAGCAGCAG CTCCAGCAGC AGCAATTGCA GCAGCAGCAG TTACTGCAGC TCCAGCAGCT GCTCCAGCAG TCCCCACCAC AGGCCCCGTT GCCCATGGCT GTCAGCCGGG GGCTCCCCCC GCAGCAGCCA CAGCAGCCGC TTCTGAATCT CCAGGGCACC AACTCAGCCT CCCTCCTCAA CGGCTCCATG CTGCAGAGAG CTTTGCTTTT ACAGCAGTTG CAAGGTAACC TCCGAGGCTA TGGCATGGCA TCCCCAGGCC TCGCAGCCCC CAGCCTCACA CCCCCACAAC TGGCCACTCC AAATTTGCAA CAGTTCTTTC CCCAGGCCAC TCGCCAGTCC TTGCTGGGAC CTCCTCCTGT TGGGGTCCCC ATGAACCCTT CCCAGTTCAA CCTTTCAGGA CGGAACCCCC AGAAACAGGC CCGGACCTCC TCCTCTACCA CCCCCAATCG AAAGGATTCT TCTTCTCAGA CAATGCCTGT GGAAGACAAG TCAGACCCCC CAGAGGGGTC TGAGGAAGCC GCAGAGCCCC GGATGGACAC ACCAGAAGAC CAAGATTTAC CGCCCTGCCC AGAGGACATC GCCAAGGAAA AACGCACTCC AGCACCTGAG CCTGAGCCTT GTGAGGCGTC CGAGCTGCCA GCAAAGAGAT TGAGGAGCTC AGAAGAGCCC ACAGAGAAGG AACCTCCAGG GCAGTTACAG GTGAAGGCCC AGCCGCAGGC CCGGATGACA GTACCGAAAC AGACACAGAC ACCAGACCTG CTGCCTGAGG CCTGGAAGC CCAAGTGCTG CCACGATTCC AGCCACGGGT CCTGCAGGTC CAGGCCCAGG TGCAGTCACA GACTCAGCCG CGGATACCAT CCACAGACAC CCAGGTGCAG CCAAAGCTGC AGAAGCAGGC GCAAACACAG ACCTCTCCAG AGCACTTAGT GCTGCAACAG AAGCAGGTGC AGCCACAGCT GCAGCAGGAG GCAGAGCCAC AGAAGCAGGT GCAGCCACAG GTACAGCCAC AGGCACATTC ACAGGGCCCA AGGCAGGTGC AGCTGCAGCA GGAGGCAGAG CCGCTGAAGC AGGTGCAGCC ACAGGTGCAG CCCCAGGCAC ATTCACAGCC CCCAAGGCAG GTGCAGCTGC AGCTGCAGAA GCAGGTCCAG ACACAGACAT ATCCACAGGT CCACACACAG GCACAGCCAA GCGTCCAGCC ACAGGAGCAT CCTCCAGCGC AGGTGTCAGT ACAGCCACCA GAGCAGACCC ATGAGCAGCC TCACACCCAG CCGCAGGTGT CGTTGCTGGC TCCAGAGCAA ACACCAGTTG TGGTTCATGT CTGCGGGCTG GAGATGCCAC CTGATGCAGT AGAAGCTGGT GGAGGCATGG AAAAGACCTT GCCAGAGCCT GTGGGCACCC AAGTCAGCAT GGAAGAGATT CAGAATGAGT CGGCCTGTGG CCTAGATGTG GGAGAATGTG AAAACAGAGC GAGAGAGATG CCAGGGGTAT GGGGCGCCGG GGGCTCCCTG AAGGTCACCA TTCTGCAGAG CAGTGACAGC CGGGCCTTTA GCACTGTACC CCTGACACCT GTCCCCCGCC CCAGTGACTC CGTCTCCTCC ACCCCTGCGG CTACCAGCAC TCCCTCTAAG CAGGCCCTCC AGTTCTTCTG CTACATCTGC AAGGCCAGCT GCTCCAGCCA GCAGGAGTTC CAGGACCACA TGTCGGAGCC TCAGCACCAG CAGCGGCTAG GGGAGATCCA GCACATGAGC CAAGCCTGCC TCCTGTCCCT GCTGCCCGTG CCCCGGGACG TCCTGGAGAC AGAGGATGAG GAGCCTCCAC CAAGGCGCTG GTGCAACACC TGCCAGCTCT ACTACATGGG GGACCTGATC CAACACCGCA GGACACAGGA CCACAAGATT GCCAAACAAT CCTTGCGACC CTTCTGCACC GTTTGCAACC GCTACTTCAA AACCCCTCGC AAGTTTGTGG AGCACGTGAA GTCCCAGGGG CATAAGGACA AAGCCAAGGA GCTGAAGTCG CTTGAGAAAG AAATTGCTGG CCAAGATGAG GACCACTTCA TTACAGTGGA CGCTGTGGGT TGCTTCGAGG GTGATGAAGA AGAGGAAGAG GATGATGAGG ATGAAGAAGA GATCGAGGTT GAGGAGGAAC TCTGCAAGCA GGTGAGGTCC AGAGATATAT CCAGAGAGGA GTGGAAGGGC TCGGAGACCT ACAGCCCCAA TACTGCATAT GGTGTGGACT TCCTGGTGCC CGTGATGGGC TATATCTGCC GCATCTGCCA CAAGTTCTAT CACAGCAACT CAGGGGCACA GCTCTCCCAC TGCAAGTCCC TGGGCCACTT TGAGAACCTG CAGAAATACA AGGCGGCCAA GAACCCCAGC CCCACCACCC GACCTGTGAG CCGCCGGTGC GCAATCAACG CCCGGAACGC TTTGACAGCC CTGTTCACCT CCAGCGGCCG CCCACCCTCC CAGCCCAACA CCCAGGACAA AACACCCAGC AAGGTGACGG CTCGACCCTC CCAGCCCCA CTACCTCGGC GCTCAACCCG CCTCAAAACC TGATAGAGGG ACCTCCCTGT CCCTGGCCTG CCTGGGTCCA GATCTGCTAA TGCTTTTTAG GAGTCTGCCT GGAAACTTTG ACATGGTTCA TGTTTTTACT CAAAATCCAA

14:

Exon 6 minus transcript

TGGGGGCTGC GGGCCGGCC CATCCGTGGG GGCGACTTGA GCGTTGAGGG CGCGCGGGGA GGCGAGCCAC CATGTTCAGC CAGCAGCAGC AGCAGCTCCA GCAACAGCAG CAGCAGCTCC AGCAGTTACA GCAGCAGCAG CTCCAGCAGC AGCAATTGCA GCAGCAGCAG TTACTGCAGC TCCAGCAGCT GCTCCAGCAG TCCCCACCAC AGGCCCCGTT GCCCATGGCT GTCAGCCGGG GGCTCCCCCC GCAGCAGCCA CAGCAGCCGC TTCTGAATCT CCAGGGCACC AACTCAGCCT CCCTCCTCAA CGGCTCCATG CTGCAGAGAG CTTTGCTTTT ACAGCAGTTG CAAGGACTGG ACCAGTTTGC AATGCCACCA GCCACGTATG ACACTGCCGG TCTCACCATG CCCACAGCAA CACTGGGTAA CCTCCGAGGC TATGGCATGG CATCCCCAGG CCTCGCAGCC CCCAGCCTCA CACCCCCACA ACTGGCCACT CCAAATTTGC AACAGTTCTT TCCCCAGGCC ACTCGCCAGT CCTTGCTGGG ACCTCCTCCT GTTGGGGTCC CCATGAACCC TTCCCAGTTC AACCTTTCAG GACGGAACCC CCAGAAACAG GCCCGGACCT CCTCCTCTAC CACCCCCAAT CGAAAGACAA TGCCTGTGGA AGACAAGTCA GACCCCCCAG AGGGGTCTGA GGAAGCCGCA GAGCCCCGGA TGGACACACC AGAAGACCAA GATTTACCGC CCTGCCCAGA GGACATCGCC AAGGAAAAAC GCACTCCAGC ACCTGAGCCT GAGCCTTGTG AGGCGTCCGA GCTGCCAGCA AAGAGATTGA GGAGCTCAGA AGAGCCCACA GAGAAGGAAC CTCCAGGGCA GTTACAGGTG AAGGCCCAGC CGCAGGCCCG GATGACAGTA CCGAAACAGA CACAGACACC AGACCTGCTG CCTGAGGCCC TGGAAGCCCA AGTGCTGCCA CGATTCCAGC CACGGGTCCT GCAGGTCCAG GCCCAGGTGC AGTCACAGAC TCAGCCGCGG ATACCATCCA CAGACACCCA GGTGCAGCCA AAGCTGCAGA AGCAGGCGCA AACACAGACC TCTCCAGAGC ACTTAGTGCT GCAACAGAAG CAGGTGCAGC CACAGCTGCA GCAGGAGGCA GAGCCACAGA AGCAGGTGCA GCCACAGGTA CAGCCACAGG CACATTCACA GGGCCCAAGG CAGGTGCAGC TGCAGCAGGA GGCAGAGCCG CTGAAGCAGG TGCAGCCACA GGTGCAGCCC CAGGCACATT CACAGCCCCC AAGGCAGGTG CAGCTGCAGC TGCAGAAGCA GGTCCAGACA CAGACATATC CACAGGTCCA CACACAGGCA CAGCCAAGCG TCCAGCCACA GGAGCATCCT CCAGCGCAGG TGTCAGTACA GCCACCAGAG CAGACCCATG AGCAGCCTCA CACCCAGCCO CAGGTGTCGT TGCTGGCTCC AGAGCAAACA CCAGTTGTGG TTCATGTCTG CGGGCTGGAG ATGCCACCTG ATGCAGTAGA AGCTGGTGGA GGCATGGAAA AGACCTTGCC AGAGCCTGTG GGCACCCAAG TCAGCATGGA AGAGATTCAG AATGAGTCGG CCTGTGGCCT AGATGTGGGA GAATGTGAAA ACAGAGCGAG AGAGATGCCA GGGGTATGGG GCGCCGGGGG CTCCCTGAAG GTCACCATTC TGCAGAGCAG TGACAGCCGG GCCTTTAGCA CTGTACCCCT GACACCTGTC CCCGCCCCA GTGACTCCGT CTCCTCCACC CCTGCGGCTA CCAGCACTCC CTCTAAGCAG GCCCTCCAGT TCTTCTGCTA CATCTGCAAG GCCAGCTGCT CCAGCCAGCA GGAGTTCCAG GACCACATGT CGGAGCCTCA GCACCAGCAG CGGCTAGGGG AGATCCAGCA CATGAGCCAA GCCTGCCTCC TGTCCCTGCT GCCCGTGCCC CGGGACGTCC TGGAGACAGA GGATGAGGAG CCTCCACCAA GGCGCTGGTG CAACACCTGC CAGCTCTACT ACATGGGGGA CCTGATCCAA CACCGCAGGA CACAGGACCA CAAGATTGCC AAACAATCCT TGCGACCCTT CTGCACCGTT TGCAACCGCT ACTTCAAAAC CCCTCGCAAG TTTGTGGAGC ACGTGAAGTC CCAGGGGCAT AAGGACAAAG CCAAGGAGCT GAAGTCGCTT GAGAAAGAAA TTGCTGGCCA AGATGAGGAC CACTTCATTA CAGTGGACGC TGTGGGTTGC TTCGAGGGTG ATGAAGAAGA GGAAGAGGAT GATGAGGATG AAGAAGAGAT CGAGGTTGAG GAGGAACTCT GCAAGCAGGT GAGGTCCAGA GATATATCCA GAGAGGAGTG GAAGGGCTCG GAGACCTACA GCCCAATAC TGCATATGGT GTGGACTTCC TGGTGCCCGT GATGGGCTAT ATCTGCCGCA TCTGCCACAA GTTCTATCAC AGCAACTCAG GGGCACAGCT CTCCCACTGC AAGTCCCTGG GCCACTTTGA GAACCTGCAG AAATACAAGG CGGCCAAGAA CCCCAGCCCC ACCACCCGAC CTGTGAGCCG CCGGTGCGCA ATCAACGCCC GGAACGCTTT GACAGCCCTG TTCACCTCCA GCGGCCGCCC ACCCTCCCAG CCCAACACCC AGGACAAAAC ACCCAGCAAG GTGACGGCTC GACCCTCCCA GCCCCCACTA CCTCGGCGCT CAACCCGCCT CAAAACCTGA TAGAGGACC TCCCTGTCCC TGGCCTGCCT GGGTCCAGAT CTGCTAATGC TTTTTAGGAG TCTGCCTGGA AACTTTGACA TGGTTCATGT TTTTACTCAA AAAAAA

Exon 8 minus variant 1

TGGGGGCTGC GGGGCCGGCC CATCCGTGGG GGCGACTTGA GCGTTGAGGG CGCGCGGGGA GGCGAGCCAC CATGTTCAGC CAGCAGCAGC AGCAGCTCCA GCAACAGCAG CAGCAGCTCC AGCAGTTACA GCAGCAGCAG CTCCAGCAGC AGCAATTGCA GCAGCAGCAG TTACTGCAGC TCCAGCAGCT GCTCCAGCAG TCCCCACCAC AGGCCCCGTT GCCCATGGCT GTCAGCCGGG GGCTCCCCCC GCAGCAGCCA CAGCAGCCGC TTCTGAATCT CCAGGGCACC AACTCAGCCT CCCTCCTCAA CGGCTCCATG CTGCAGAGAG CTTTGCTTTT ACAGCAGTTG CAAGGACTGG ACCAGTTTGC AATGCCACCA GCCACGTATG ACACTGCCGG TCTCACCATG CCCACAGCAA CACTGGGTAA CCTCCGAGGC TATGGCATGG CATCCCCAGG CCTCGCAGCC CCCAGCCTCA CACCCCCACA ACTGGCCACT CCAAATTTGC AACAGTTCTT TCCCCAGGCC ACTCGCCAGT CCTTGCTGGG ACCTCCTCCT GTTGGGGTCC CCATGAACCC TTCCCAGTTC AACCTTTCAG GACGGAACCC CCAGAAACAG GCCCGGACCT CCTCCTCTAC CACCCCCAAT CGAAAGGATT CTTCTTCTCA GACAATGCCT GTGGAAGACA AGTCAGACCC CCCAGAGGGG TCTGAGGAAG CCGCAGAGCC CCGGATGGAC ACACCAGAAG ACCAAGATIT ACCGCCCTGC CCAGAGGACA TCGCCAAGGA AAAACGCACT CCAGCACCTG AGCCTGAGCC TTGTGAGGCG TCCGAGCTGC CAGCAAAGAG ATTGAGGAGC TCAGAAGAGC CCACAGAGAA GGAACCTCCA GGGCAGTTAC AGGTGAAGGC CCAGCCGCAG GCCCGGATGA CAGTACCGAA ACAGACACAG ACACCAGACC TGCTGCCTGA GGCCCTGGAA GCCCAAGTGC TGCCACGATT CCAGCCACGG GTCCTGCAGG TCCAGGCCCA GGTGCAGTCA CAGACTCAGC CGCGGATACC ATCCACAGAC ACCCAGGTGC AGCCAAAGCT GCAGAAGCAG GCGCAAACAC AGACCTCTCC AGAGCACTTA GTGCTGCAAC AGAAGCAGGT GCAGCCACAG CTGCAGCAGG AGGCAGAGCC ACAGAAGCAG GTGCAGCCAC AGGTACAGCC ACAGGCACAT TCACAGGGCC CAAGGCAGGT GCAGCTGCAG CAGGAGGCAG AGCCGCTGAA GCAGGTGCAG ACAG GTCCACACAC AGGCA CAGCC AAGCGTCCAG

CCACAGGAGC ATCCTCCAGC GCAGGTGTCA GTACAGCCAC CAGAGCAGAC CCATGAGCAG CCTCACACCC AGCCGCAGGT GTCGTTGCTG GCTCCAGAGC AAACACCAGT TGTGGTTCAT GTCTGCGGGC TGGAGATGCC ACCTGATGCA GTAGAAGCTG GTGGAGGCAT GGAAAAGACC TTGCCAGAGC CTGTGGGCAC CCAAGTCAGC ATGGAAGAGA TTCAGAATGA GTCGGCCTGT GGCCTAGATG TGGGAGAATG TGAAAACAGA GCGAGAGAGA TGCCAGGGGT ATGGGGCGCC GGGGGCTCCC TGAAGGTCAC CATTCTGCAG AGCAGTGACA GCCGGGCCTT TAGCACTGTA CCCCTGACAC CTGTCCCCCG CCCCAGTGAC TCCGTCTCCT CCACCCTGC GGCTACCAGC ACTCCCTCTA AGCAGGCCCT CCAGTTCTTC TGCTACATCT GCAAGGCCAG CTGCTCCAGC CAGCAGGAGT TCCAGGACCA CATGTCGGAG CCTCAGCACC AGCAGCGGCT AGGGGAGATC CAGCACATGA GCCAAGCCTG CCTCCTGTCC CTGCTGCCCG TGCCCCGGGA CGTCCTGGAG ACAGAGGATG AGGAGCCTCC ACCAAGGCGC TGGTGCAACA CCTGCCAGCT CTACTACATG GGGGACCTGA TCCAACACCG CAGGACACAG GACCACAAGA TTGCCAAACA ATCCTTGCGA CCCTTCTGCA CCGTTTGCAA CCGCTACTTC AAAACCCCTC GCAAGTTTGT GGAGCACGTG AAGTCCCAGG GGCATAAGGA CAAAGCCAAG GAGCTGAAGT CGCTTGAGAA AGAAATTGCT GGCCAAGATG AGGACCACTT CATTACAGTG GACGCTGTGG GTTGCTTCGA GGGTGATGAA GAAGAGGAAG AGGATGATGA GGATGAAGAA GAGATCGAGG TTGAGGAGGA ACTCTGCAAG CAGGTGAGGT CCAGAGATAT ATCCAGAGAG GAGTGGAAGG GCTCGGAGAC CTACAGCCCC AATACTGCAT ATGGTGTGGA CTTCCTGGTG CCCGTGATGG GCTATATCTG CCGCATCTGC CACAAGTTCT ATCACAGCAA CTCAGGGGCA CAGCTCTCCC ACTGCAAGTC CCTGGGCCAC TTTGAGAACC TGCAGAAATA CAAGGCGGCC AAGAACCCCA GCCCCACCAC CCGACCTGTG AGCCGCCGGT GCGCAATCAA CGCCCGGAAC GCTTTGACAG CCCTGTTCAC CTCCAGCGGC CGCCCACCCT CCCAGCCCAA CACCCAGGAC AAAACACCCA GCAAGGTGAC GGCTCGACCC TCCCAGCCCC CACTACCTCG GCGCTCAACC CGCCTCAAAA CCTGATAGAG GGACCTCCCT GTCCCTGGCC TGCCTGGGTC CAGATCTGCT AATGCTTTTT AGGAGTCTGC CTGGAAACTT TGACATGGTT CATGTTTTTA CTCAAAATCC AATAAAACAA GGTAGTTTGG CTGTGCAAAA ΑΑΑΑΑΑΑΑΑ ΑΑΑΑΑΑΑΑΑ ΑΑ

TGGGGGCTGC GGGCCCGGCC CATCCGTGGG GGCGACTTGA GCGTTGAGGG CGCGCGGGGA GGCGAGCCAC CATGTTCAGC CAGCAGCAGC AGCAGCTCCA GCAACAGCAG CAGCAGCTCC AGCAGTTACA GCAGCAGCAG CTCCAGCAGC AGCAATTGCA GCAGCAGCAG TTACTGCAGC TCCAGCAGCT GCTCCAGCAG TCCCCACCAC AGGCCCCGTT GCCCATGGCT GTCAGCCGGG GGCTCCCCCC GCAGCAGCCA CAGCAGCCGC TTCTGAATCT CCAGGGCACC AACTCAGCCT CCCTCCTCAA CGCTCCATG CTGCAGAGAG CTTTGCTTTT ACAGCAGTTG CAAGGACTGG ACCAGTTTGC AATGCCACCA GCCACGTATG ACACTGCCGG TCTCACCATG CCCACAGCAA CACTGGGTAA CCTCCGAGGC TATGGCATGG CATCCCCAGG CCTCGCAGCC CCCAGCCTCA CACCCCCACA ACTGGCCACT CCAAATTTGC AACAGTTCTT TCCCCAGGCC ACTCGCCAGT CCTTGCTGGG CLARATTION AACAGITOTI TOUCHAGOCC ACTUGULAGI CUTTGUIGGG
ACCTCCTCCT GTTGGGGTCC CCATGAACCC TTCCCAGTTC AACCTTTCAG GACGGAACCC CCAGAAACAG GCCCGGACCT CCTCCTCTAC CACCCCCAAT CGAAAGGATT CTTCTCTCA GACAATGCCT GTGGAAGACA AGTCAGACCC CCCAGAGGGG TCTGAGGAAG CCGCAGAGCC CCGGATGGAC ACACCAGAAG ACCAAGATT ACCGCCCTGC CCAGAGGACA TCGCCAAGGA AAAACGCACT CCAGCACCTG AGCCTGAGCC TTGTGAGGCG TCCGAGCTGC CAGCAAAGAG ATTGAGGAGC TCAGAAGAGC CCACAGAGAA GGAACCTCCA GGGCAGTTAC AGTTGAAGGC CCAGCCGCAG GCCCGGATGA CAGTACCGAA ACAGACACAG ACACCAGACC TGCTGCCTGA GGCCCTGGAA GCCCAAGTGC TGCCACGATT CCAGCCACGG GTCCTGCAGG TCCAGGCCCA GGTGCAGTCA CAGACTCAGC GCGCAAACAC AGACCTCTCC AGAGCACTTA GTGCTGCAAC AGAAGCAGGT GCAGCCACAG CTGCAGCAGG AGGCAGAGCC ACAGAAGCAG GTGCAGCCAC AGGTCCACAC ACAGGCACAG CCAAGCGTCC AGCCACAGGA GCATCCTCCA GCGCAGGTGT CAGTACAGCC ACCAGAGCAG ACCCATGAGC AGCCTCACAC CCAGCCGCAG GTGTCGTTGC TGGCTCCAGA GCAAACACCA GTTGTGGTTC ATGTCTGCGG GCTGGAGATG CCACCTGATG CAGTAGAAGC TGGTGGAGGC ATGGAAAAGA CCTTGCCAGA GCCTGTGGGC ACCCAAGTCA GCATGGAAGA ALGUAAAAGA CELIGCAGA GCCTAGA TGTGGGAGAA TGTGAAAACA
GATTCAGAAT GAGTCGGCCT GTGGCCTAGA TGTGGGAGAA TGTGAAAACA GAGCGAGAGA GATGCCAGGG GTATGGGGCG CCGGGGGCTC CCTGAAGGTC ACCATTCTGC AGAGCAGTGA CAGCCGGGCC TTTAGCACTG TACCCCTGAC ACCTGTCCCC CGCCCCAGTG ACTCCGTCTC CTCCACCCCT GCGGCTACCA GCACTCCCTC TAAGCAGGCC CTCCAGTTCT TCTGCTACAT CTGCAAGGCC AGCTGCTCCA GCCAGCAGGA GTTCCAGGAC CACATGTCGG AGCCTCAGCA CCAGCAGCGG CTAGGGGAGA TCCAGCACAT GAGCCAAGCC TGCCTCCTGT CCCTGCTGCC CGTGCCCCGG GACGTCCTGG AGACAGAGGA TGAGGAGCCT CCACCAAGGC GCTGGTGCAA CACCTGCCAG CTCTACTACA TGGGGGACCT GATCCAACAC CGCAGGACAC AGGACCACAA GATTGCCAAA CAATCCTTGC GACCCTTCTG CACCGTTTGC AACCGCTACT TCAAAACCCC TCGCAAGTTT GTGGAGCACG TGAAGTCCCA GGGGCATAAG GACAAAGCCA AGGAGCTGAA GTCGCTTGAG AAAGAAATTG CTGGCCAAGA TGAGGACCAC TTCATTACAG TGGACGCTGT GGGTTGCTTC GAGGGTGATG AAGAAGAGGA AGAGGATGAT GAGGATGAAG AAGAGATCGA GGTTGAGGAG GAACTCTGCA AGCAGGTGAG GTCCAGAGAT ATATCCAGAG AGGAGTGGAA GGGCTCGGAG ACCTACAGCC CCAATACTGC ATATGGTGTG GACTTCCTGG TGCCCGTGAT GGGCTATATC TGCCGCATCT GCCACAAGTT CTATCACAGC AACTCAGGGG CACAGCTCTC CCACTGCAAG TCCCTGGGCC ACTTTGAGAA CCTGCAGAAA TACAAGGCGG CCAAGAACCC CAGCCCCACC ACCCGACCTG TGAGCCGCCG GTGCGCAATC AACGCCCGGA ACGCTTTGAC AGCCCTGTTC ACCTCCAGCG GCCGCCCACC CTCCCAGCCC AACACCCAGG ACAAAACACC CAGCAAGGTG ACGGCTCGAC CCTCCCAGCC CCCACTACCT CGGCGCTCAA CCCGCCTCAA AACCTGATAG AGGGACCTCC CTGTCCCTGG CCTGCCTGGG TCCAGATCTG CTAATGCTTT TTAGGAGTCT GCCTGGAAAC TTTGACATGG TTCATGTTTT TACTCAAAAT

Figure 21F

Exon 8 minus variant 3

TGGGGGCTGC GGGGCCGGCC CATCCGTGGG GGCGACTTGA GCGTTGAGGG CGCGCGGGGA GGCGAGCCAC CATGTTCAGC CAGCAGCAGC AGCAGCTCCA GCAACAGCAG CAGCAGCTCC AGCAGTTACA GCAGCAGCAG CTCCAGCAGC AGCAATTGCA GCAGCAGCAG TTACTGCAGC TCCAGCAGCT GCTCCAGCAG TCCCCACCAC AGGCCCCGTT GCCCATGGCT GTCAGCCGGG GGCTCCCCCC GCAGCAGCCA CAGCAGCCGC TTCTGAATCT CCAGGGCACC AACTCAGCCT CCCTCCTCAA CGGCTCCATG CTGCAGAGAG CTTTGCTTTT ACAGCAGTTG CAAGGACTGG ACCAGTTTGC AATGCCACCA GCCACGTATG ACACTGCCGG TCTCACCATG CCCACAGCAA CACTGGGTAA CCTCCGAGGC TATGGCATGG CATCCCCAGG CCTCGCAGCC CCCAGCCTCA CACCCCCACA ACTGGCCACT CCAAATTTGC AACAGTTCTT TCCCCAGGCC ACTCGCCAGT CCTTGCTGGG ACCTCCTCCT GTTGGGGTCC CCATGAACCC TTCCCAGTTC AACCTTTCAG GACGGAACCC CCAGAAACAG GCCCGGACCT CCTCCTCTAC CACCCCCAAT CGAAAGGATT CTTCTTCTCA GACAATGCCT GTGGAAGACA AGTCAGACCC CCCAGAGGG TCTGAGGAAG CCGCAGAGCC CCGGATGGAC ACACCAGAAG ACCAAGATTT ACCGCCCTGC CCAGAGGACA TCGCCAAGGA AAAACGCACT CCAGCACCTG AGCCTGAGCC TTGTGAGGCG TCCGAGCTGC CAGCAAAGAG ATTGAGGAGC TCAGAAGAGC CCACAGAGAA GGAACCTCCA GGGCAGTTAC AGGTGAAGGC CCAGCCGCAG GCCCGGATGA CAGTACCGAA ACAGACACAG ACACCAGACC TGCTGCCTGA GGCCCTGGAA GCCCAAGTGC TGCCACGATT CCAGCCACGG GTCCTGCAGG TCCAGGCCTC CACAGGTCCA CACACAGGCA CAGCCAAGCG TCCAGCCACA GGAGCATCCT CCAGCGCAGG TGTCAGTACA GCCACCAGAG CAGACCCATG AGCAGCCTCA CACCCAGCCG CAGGTGTCGT TGCTGGCTCC AGAGCAAACA CCAGTTGTGG TTCATGTCTG CGGGCTGGAG ATGCCACCTG ATGCAGTAGA AGCTGGTGGA GGCATGGAAA AGACCTTGCC AGAGCCTGTG GGCACCCAAG TCAGCATGGA AGAGATTCAG AATGAGTCGG CCTGTGGCCT AGATGTGGGA GAATGTGAAA ACAGAGCGAG AGAGATGCCA GGGGTATGGG GCGCCGGGGG CTCCCTGAAG GTCACCATTC TGCAGAGCAG TGACAGCCGG GCCTTTAGCA CTGTACCCCT GACACCTGTC CCCCGCCCCA GTGACTCCGT CTCCTCCACC CCTGCGGCTA CCAGCACTCC CTCTAAGCAG GCCCTCCAGT TCTTCTGCTA CATCTGCAAG GCCAGCTGCT CCAGCCAGCA GGAGTTCCAG GACCACATGT CGGAGCCTCA GCACCAGCAG CGGCTAGGGG AGATCCAGCA CATGAGCCAA GCCTGCCTCC TGTCCCTGCT GCCCGTGCCC CGGGACGTCC TGGAGACAGA GGATGAGGAG CCTCCACCAA GGCGCTGGTG CAACACCTGC CAGCTCTACT ACATGGGGGA CCTGATCCAA CACCGCAGGA CACAGGACCA CAAGATTGCC AAACAATCCT TGCGACCCTT CTGCACCGTT TGCAACCGCT ACTTCAAAAC CCCTCGCAAG TTTGTGGAGC ACGTGAAGTC CCAGGGGCAT AAGGACAAAG CCAAGGAGCT GAAGTCGCTT GAGAAAGAAA TTGCTGGCCA AGATGAGGAC CACTTCATTA CAGTGGACGC TGTGGGTTGC TTCGAGGGTG ATGAAGAAGA GGAAGAGGAT GATGAGGATG AAGAAGAGAT CGAGGTTGAG GAGGAACTCT GCAAGCAGGT GAGGTCCAGA GATATATCCA GAGAGGAGTG GAAGGGCTCG GAGACCTACA GCCCCAATAC TGCATATGGT GTGGACTTCC TGGTGCCCGT GATGGGCTAT ATCTGCCGCA TCTGCCACAA GTTCTATCAC AGCAACTCAG GGGCACAGCT CTCCCACTGC AAGTCCCTGG GCCACTTTGA GAACCTGCAG AAATACAAGG CGGCCAAGAA CCCCAGCCCC ACCACCGAC CTGTGAGCCG CCGGTGCGCA ATCAACGCCC GGAACGCTTT GACAGCCCTG TTCACCTCCA GCGGCCGCCC ACCCTCCCAG CCCAACACCC AGGACAAAAC ACCCAGCAAG GTGACGGCTC GACCCTCCCA GCCCCCACTA CCTCGGCGCT CAACCCGCCT CAAAACCTGA TAGAGGGACC TCCCTGTCCC TGGCCTGCCT GGGTCCAGAT CTGCTAATGC TTTTTAGGAG TCTGCCTGGA AACTTTGACA TGGTTCATGT TTTTACTCAA AATCCAATAA AACAAGGTAG TTTGGCTGTG CAAAAAAAA AAAAAAAAAA AAAAAA

Figure 21G

Exon 14 minus transcript

TGGGGGCTGC GGGCCCGCC CATCCGTGGG GGCGACTTGA GCGTTGAGGG CGCGCGGGGA GGCGAGCCAC CATGTTCAGC CAGCAGCAGC AGCAGCTCCA GCAACAGCAG CAGCAGCTCC AGCAGTTACA GCAGCAGCAG CTCCAGCAGC AGCAATTGCA GCAGCAGCAG TTACTGCAGC TCCAGCAGCT GCTCCAGCAG TCCCACCAC AGGCCCGTT GCCCATGGCT GTCAGCCGGG GGCTCCCCCC GCAGCAGCCA CAGCAGCCGC TTCTGAATCT CCAGGGCACC AACTCAGCCT CCCTCCTCAA CGGCTCCATG CTGCAGAGAG CTTTGCTTTT ACAGCAGTTG CAAGGACTGG ACCAGTTTGC AATGCCACCA GCCACGTATG ACACTGCCGG TCTCACCATG CCCACAGCAA CACTGGGTAA CCTCCGAGGC TATGGCATGG CATCCCCAGG CCTCGCAGCC CCCAGCCTCA CACCCCCACA ACTGGCCACT CCAAATTTGC AACAGTTCTT TCCCCAGGCC ACTCGCCAGT CCTTGCTGGG ACCTCCTCCT GTTGGGGTCC CCATGAACCC TTCCCAGTTC AACCTTTCAG GACGGAACCC CCAGAAACAG GCCCGGACCT CCTCCTCTAC CACCCCCAAT CGAAAGGATT CTTCTTCTCA GACAATGCCT GTGGAAGACA AGTCAGACCC CCCAGAGGGG TCTGAGGAAG CCGCAGAGCC CCGGATGGAC ACACCAGAAG ACCAAGATTT ACCGCCCTGC CCAGAGGACA TCGCCAAGGA AAAACGCACT CCAGCACCTG AGCCTGAGCC TTGTGAGGCG TCCGAGCTGC CAGCAAAGAG ATTGAGGAGC TCAGAAGAGC CCACAGAGAA GGAACCTCCA GGGCAGTTAC AGGTGAAGGC CCAGCCGCAG GCCCGGATGA CAGTACCGAA ACAGACACAG ACACCAGACC TGCTGCCTGA GGCCCTGGAA GCCCAAGTGC TGCCACGATT CCAGCCACGG GTCCTGCAGG TCCAGGCCCA GGTGCAGTCA CAGACTCAGC CGCGGATACC ATCCACAGAC ACCCAGGTGC AGCCAAAGCT GCAGAAGCAG GCGCAAACAC AGACCTCTCC AGAGCACTTA GTGCTGCAAC AGAAGCAGGT GCAGCCACAG CTGCAGCAGG AGGCAGAGCC ACAGAAGCAG GTGCAGCCAC AGGTACAGCC ACAGGCACAT TCACAGGGCC CAAGGCAGGT GCAGCTGCAG CAGGAGGCAG AGCCGCTGAA GCAGGTGCAG CCACAGGTGC AGCCCCAGGC ACATTCACAG CCCCCAAGGC AGGTGCAGCT GCAGCTGCAG AAGCAGGTCC AGACACAGAC ATATCCACAG GTCCACACAC AGGCACAGCC AAGCGTCCAG CCACAGGAGC ATCCTCCAGC GCAGGTGTCA GTACAGCCAC CAGAGCAGAC CCATGAGCAG CCTCACACCC AGCCGCAGGT GTCGTTGCTG GCTCCAGAGC AAACACCAGT TGTGGTTCAT GTCTGCGGGC TGGAGATGCC ACCTGATGCA GTAGAAGCTG GTGGAGGCAT GGAAAAGACC TTGCCAGAGC CTGTGGGCAC CCAAGTCAGC ATGGAAGAGA TTCAGAATGA GTCGGCCTGT GGCCTAGATG TGGGAGAATG TGAAAACAGA GCGAGAGAGA TGCCAGGGGT ATGGGGCGCC GGGGGCTCCC TGAAGGTCAC CATTCTGCAG AGCAGTGACA GCCGGGCCTT TAGCACTGTA CCCCTGACAC CTGTCCCCCG CCCCAGTGAC TCCGTCTCCT CCACCCCTGC GGCTACCAGC ACTCCCTCTA AGCAGGCCCT CCAGTTCTTC TGCTACATCT GCAAGGCCAG CTGCTCCAGC CAGCAGGAGT TCCAGGACCA CATGTCGGAG CCTCAGCACC AGCAGCGGCT AGGGGAGATC CAGCACATGA GCCAAGCCTG CCTCCTGTCC CTGCTGCCCG TGCCCCGGGA CGTCCTGGAG ACAGAGGATG AGGAGCCTCC ACCAAGGCGC TGGTGCAACA CCTGCCAGCT CTACTACATG GGGGACCTGA TCCAACACCG CAGGACACAG GACCACAAGA TTGCCAAACA ATCCTTGCGA CCCTTCTGCA CCGTTTGCAA CCGCTACTTC AAAACCCCTC GCAAGTTTGT GGAGCACGTG AAGTCCCAGG GGCATAAGGA CAAAGCCAAG GAGCTGAAGT CGCTTGAGAA AGAAATTGCT GGCCAAGATG AGGACCACTT CATTACAGTG GACGCTGTGG GTTGCTTCGA GGGTGATGAA GAAGAGGAAG AGGATGATGA GGATGAAGAA GAGATCGAGG TGAGGTCCAG AGATATATCC AGAGAGGAGT GGAAGGGCTC GGAGACCTAC AGCCCCAATA CTGCATATGG TGTGGACTTC CTGGTGCCCG TGATGGGCTA TATCTGCCGC ATCTGCCACA AGTTCTATCA CAGCAACTCA GGGGCACAGC TCTCCCACTG CAAGTCCCTG GGCCACTTTG AGAACCTGCA GAAATACAAG GCGGCCAAGA ACCCCAGCCC CACCACCCGA CCTGTGAGCC GCCGGTGCGC AATCAACGCC CGGAACGCTT TGACAGCCCT GTTCACCTCC AGCGGCCGCC CACCCTCCCA GCCCAACACC CAGGACAAAA CACCCAGCAA GGTGACGGCT CGACCCTCCC AGCCCCCACT ACCTCGGCGC TCAACCCGCC TCAAAACCTG ATAGAGGGAC CTCCCTGTCC CTGGCCTGCC TGGGTCCAGA TCTGCTAATG CTTTTTAGGA GTCTGCCTGG AAACTTTGAC ATGGTTCATG TTTTTACTCA AAATCCAATA AAACAAGGTA GTTTGGCTGT GCAAAAAAA AAAAAAAAA AAAAAAA

Also to be protected are transcripts which lack combinations of the variable exons. For example:-

Exon 14 and partial exon 6 minus variant TGGGGGCTGC GGGGCCGGCC CATCCGTGGG GGCGACTTGA GCGTTGAGGG CGCGCGGGGA GGCGAGCCAC CATGTTCAGC CAGCAGCAGC AGCAGCTCCA GCAACAGCAG CAGCAGCTCC AGCAGTTACA GCAGCAGCAG CTCCAGCAGC AGCAATTGCA GCAGCAGCAG TTACTGCAGC TCCAGCAGCT GCTCCAGCAG TCCCACCAC AGGCCCCGTT GCCCATGGCT GTCAGCCGGG GGCTCCCCCC GCAGCAGCCA CAGCAGCCGC TTCTGAATCT CCAGGGCACC AACTCAGCCT CCCTCCTCAA CGGCTCCATG CTGCAGAGAG CTTTGCTTTT ACAGCAGTTG CAAGGACTGG ACCAGTTTGC AATGCCACCA GCCACGTATG ACACTGCCGG TCTCACCATG CCCACAGCAA CACTGGGTAA CCTCCGAGGC TATGGCATGG CATCCCCAGG CCTCGCAGCC CCCAGCCTCA CACCCCCACA ACTGGCCACT CCAAATTTGC AACAGTTCTT TCCCCAGGCC ACTCGCCAGT CCTTGCTGGG ACCTCCTCCT GTTGGGGTCC CCATGAACCC TTCCCAGTTC AACCTTTCAG GACGGAACCC CCAGAAACAG GCCCGGACCT CCTCCTCTAC CACCCCCAAT CGAAAGACAA TGCCTGTGGA AGACAAGTCA GACCCCCCAG AGGGGTCTGA GGAAGCCGCA GAGCCCCGGA TGGACACACC AGAAGACCAA GATTTACCGC CCTGCCCAGA GGACATCGCC AAGGAAAAAC GCACTCCAGC ACCTGAGCCT GAGCCTTGTG AGGCGTCCGA GCTGCCAGCA AAGAGATTGA GGAGCTCAGA AGAGCCCACA GAGAAGGAAC CTCCAGGGCA GTTACAGGTG AAGGCCCAGC CGCAGGCCCG GATGACAGTA CCGAAACAGA CACAGACACC AGACCTGCTG CCTGAGGCCC TGGAAGCCCA AGTGCTGCCA CGATTCCAGC CACGGGTCCT GCAGGTCCAG GCCCAGGTGC AGTCACAGAC TCAGCCGCGG ATACCATCCA CAGACACCCA GGTGCAGCCA AAGCTGCAGA AGCAGGCGCA AACACAGACC TCTCCAGAGC ACTTAGTGCT GCAACAGAAG CAGGTGCAGC CACAGCTGCA GCAGGAGGCA GAGCCACAGA AGCAGGTGCA GCCACAGGTA CAGCCACAGG CACATTCACA GGGCCCAAGG CAGGTGCAGC TGCAGCAGGA GGCAGAGCCG CTGAAGCAGG TGCAGCCACA GGTGCAGCCC CAGGCACATT CACAGCCCCC AAGGCAGGTG CAGCTGCAGC TGCAGAAGCA GGTCCAGACA CAGACATATC CACAGGTCCA CACACAGGCA CAGCCAAGCG TCCAGCCACA GGAGCATCCT CCAGCGCAGG TGTCAGTACA GCCACCAGAG CAGACCCATG AGCAGCCTCA CACCCAGCCG CAGGTGTCGT TGCTGGCTCC AGAGCAAACA CCAGTTGTGG TTCATGTCTG CGGGCTGGAG ATGCCACCTG ATGCAGTAGA AGCTGGTGGA GGCATGGAAA AGACCTTGCC AGAGCCTGTG GGCACCCAAG TCAGCATGGA AGAGATTCAG AATGAGTCGG CCTGTGGCCT AGATGTGGGA GAATGTGAAA ACAGAGCGAG AGAGATGCCA GGGGTATGGG GCGCCGGGGG CTCCCTGAAG GTCACCATTC TGCAGAGCAG TGACAGCCGG GCCTTTAGCA CTGTACCCCT GACACCTGTC CCCCGCCCCA GTGACTCCGT CTCCTCCACC CCTGCGGCTA CCAGCACTCC CTCTAAGCAG GCCCTCCAGT TCTTCTGCTA CATCTGCAAG GCCAGCTGCT CCAGCCAGCA GGAGTTCCAG GACCACATGT CGGAGCCTCA GCACCAGCAG CGGCTAGGGG AGATCCAGCA CATGAGCCAA GCCTGCCTCC TGTCCCTGCT GCCCGTGCCC CGGGACGTCC TGGAGACAGA GGATGAGGAG CCTCCACCAA GGCGCTGGTG CAACACCTGC CAGCTCTACT ACATGGGGGA CCTGATCCAA CACCGCAGGA CACAGGACCA CAAGATTGCC AAACAATCCT TGCGACCCTT CTGCACCGTT TGCAACCGCT ACTTCAAAAC CCCTCGCAAG TITGTGGAGC ACGTGAAGTC CCAGGGGCAT AAGGACAAAG CCAAGGAGCT GAAGTCGCTT GAGAAAGAAA TTGCTGGCCA AGATGAGGAC CACTTCATTA CAGTGGACGC TGTGGGTTGC TTCGAGGGTG ATGAAGAAGA GGAAGAGGAT GATGAGGATG AAGAAGAGAT CGAGGTGAGG TCCAGAGATA TATCCAGAGA GGAGTGGAAG GGCTCGGAGA CCTACAGCCC CAATACTGCA TATGGTGTGG ACTICCTGGT GCCCGTGATG GGCTATATCT GCCGCATCTG CCACAAGTTC TATCACAGCA ACTCAGGGGC ACAGCTCTCC CACTGCAAGT CCCTGGGCCA CTTTGAGAAC CTGCAGAAAT ACAAGGCGGC CAAGAACCCC AGCCCCACCA CCCGACCTGT GAGCCGCCGG TGCGCAATCA ACGCCCGGAA CGCTTTGACA GCCCTGTTCA CCTCCAGCGG CCGCCCACCC TCCCAGCCCA ACACCCAGGA CAAAACACCC AGCAAGGTGA CGGCTCGACC CTCCCAGCCC CCACTACCTC GGCGCTCAAC CCGCCTCAAA ACCTGATAGA GGGACCTCCC TGTCCCTGGC CTGCCTGGGT CCAGATCTGC TAATGCTTTT TAGGAGTCTG CCTGGAAACT TTGACATGGT TCATGTTTTT ACTCAAAATC CAATAAAACA AGGTAGTTTG **GCTGTGCAAA AAAAAAAAA AAAAAAAAAA AAA**

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